

1 IN THE UNITED STATES DISTRICT COURT  
2 FOR THE NORTHERN DISTRICT OF OHIO  
3 EASTERN DIVISION

3 IN RE: NATIONAL : HON. DAN A.  
4 PRESCRIPTION OPIATE : POLSTER  
LITIGATION : MDL NO. 2804  
5 This document relates to: : Case No. 17-MD-2804  
6 The County of Summit, Ohio :  
Ohio et al. v. Purdue Pharma :  
7 L.P., et al., Case No. :  
17-OP-45004 :  
8 :  
9 The County of Cuyahoga v. :  
Purdue Pharma :  
L.P., et al., Case No. :  
0 18-OP-45090 :

11 - - -  
12 - HIGHLY CONFIDENTIAL -  
SUBJECT TO FURTHER CONFIDENTIALITY REVIEW

14 VOLUME II  
- - -  
May 9, 201

16 Videotaped deposition of  
17 CRAIG J. McCANN, Ph.D., CFA, taken  
18 pursuant to notice, was held at the law  
offices of Morgan Lewis & Bockius, LLP,  
19 1111 Pennsylvania Avenue, NW, Washington,  
D.C., beginning at 10:03 a.m., on the  
above date, before Michelle L. Gray, a  
20 Registered Professional Reporter,  
Certified Shorthand Reporter, Certified  
Realtime Reporter, and Notary Public.

23 GOLKOW LITIGATION SERVICES  
877.370.3377 ph | 917.591.5672 fax  
deps@golkow.com

Page 2	Page 4
<p>1 APPEARANCES:</p> <p>2 LEVIN PAPANTONIO THOMAS MITCHELL</p> <p>3 RAFFERTY PROCTOR, P.A.</p> <p>4 BY: PETER MOUGEY, ESQ.</p> <p>5 BY: PAGE POERSCHKE, ESQ.</p> <p>316 Baylen Street</p> <p>5 Pensacola, Florida 32502</p> <p>(850) 435-7000</p> <p>6 pmougey@levinlaw.com</p> <p>7 ppoerschke@levinlaw.com</p> <p>8 - and -</p> <p>9 WAGSTAFF &amp; CARTMELL, LLP</p> <p>10 BY: TYLER W. HUDSON, ESQ.</p> <p>4740 Grand Avenue, Suite 300</p> <p>11 Kansas City, Missouri 64112</p> <p>(816) 701-1100</p> <p>12 Thudson@wcllp.com</p> <p>Representing the Plaintiffs</p> <p>13 BRANSTETTER, STRANCH &amp; JENNINGS, PLLC</p> <p>14 BY: TRICIA HERZFELD, ESQ.</p> <p>223 Rosa L. Parks Avenue</p> <p>Suite 200</p> <p>15 Nashville, Tennessee 37203</p> <p>(615) 254-8801</p> <p>16 triciah@bsjfirm.com</p> <p>Representing the Tennessee Plaintiffs</p> <p>17</p> <p>18</p> <p>19</p> <p>20</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p>	<p>1 APPEARANCES: (Cont'd.)</p> <p>2 COVINGTON &amp; BURLING, LLP</p> <p>3 BY: CHRISTOPHER K. EPPICH, ESQ.</p> <p>4 1999 Avenue of the Stars</p> <p>5 Los Angeles, California 90067</p> <p>(424) 332-4764</p> <p>6 Ceppich@cov.com</p> <p>7 - and -</p> <p>8 COVINGTON &amp; BURLING, LLP</p> <p>9 BY: EMILY L. KVESELIS, ESQ.</p> <p>10 BY: ALISON DiCIURCIO, ESQ.</p> <p>850 Tenth Street, NW</p> <p>Suite 586N</p> <p>11 Washington, D.C. 20001</p> <p>(202) 662-5613</p> <p>12 ekveselis@cov.com</p> <p>Adiciurcio@cov.com</p> <p>13 Representing the Defendant, McKesson Corporation</p> <p>14 WILLIAMS &amp; CONNOLLY, LLP</p> <p>15 BY: PAUL E. BOEHM, ESQ.</p> <p>725 12th Street, NW</p> <p>16 Washington, D.C. 20005</p> <p>(202) 434-5148</p> <p>17 pboehm@wc.com</p> <p>Representing the Defendant, Cardinal Health</p> <p>18</p> <p>19</p> <p>20 BARTLIT BECK, LLP</p> <p>21 BY: KATHERINE M. SWIFT, ESQ.</p> <p>54 West Hubbard Street</p> <p>22 Chicago, Illinois 60654</p> <p>(312) 494-4440</p> <p>23 katherine.swift@bartlit-beck.com</p> <p>Representing the Defendant, Walgreens</p> <p>24</p>
<p>1 APPEARANCES: (Cont'd.)</p> <p>2 MORGAN LEWIS &amp; BOCKIUS LLP</p> <p>3 BY: ELISA P. McENROE, ESQ.</p> <p>4 1701 Market Street</p> <p>5 Philadelphia, Pennsylvania 19103</p> <p>(215) 963-5917</p> <p>6 elisa.mcenroe@morganlewis.com</p> <p>7 - and -</p> <p>8 MORGAN LEWIS &amp; BOCKIUS LLP</p> <p>9 BY: JOHN M. MALOY, ESQ.</p> <p>10 101 Park Avenue</p> <p>11 New York, New York 10178</p> <p>(212) 309-6682</p> <p>12 John.maloy@morganlewis.com</p> <p>Representing the Defendant, Rite Aid of Maryland, Inc., doing business as Mid-Atlantic Customer Support Center</p> <p>13 MORGAN LEWIS &amp; BOCKIUS LLP</p> <p>14 BY: MARTHA A. LEIBELL, ESQ.</p> <p>15 200 South Biscayne Boulevard</p> <p>Suite 5300</p> <p>16 Miami, Florida 33131</p> <p>(305) 415-3387</p> <p>17 Martha.leibell@morganlewis.com</p> <p>Representing the Defendant, Teva Pharmaceuticals, Inc. Cephalon Inc., Watson Laboratories, Actavis LLC, Actavis Pharma, Inc.</p> <p>18</p> <p>19 KIRKLAND &amp; ELLIS, LLP</p> <p>20 BY: JENNIFER G. LEVY, ESQ.</p> <p>21 BY: CATIE VENTURA, ESQ.</p> <p>22 1301 Pennsylvania Avenue, N.W.</p> <p>Washington, D.C. 20004</p> <p>(202) 339-5000</p> <p>23 Jennifer.levy@kirkland.com</p> <p>Catie.ventura@kirkland.com</p> <p>24 Representing the Defendant, Allergan Finance</p>	<p>1 APPEARANCES: (Cont'd.)</p> <p>2 O'MELVENY &amp; MYERS, LLP</p> <p>3 BY: TAD ALLAN, ESQ.</p> <p>4 400 South Hope Street, 18th Floor</p> <p>5 Los Angeles, California 90071</p> <p>(213) 430-6665</p> <p>Tallan@omm.com</p> <p>6 - and -</p> <p>7 TUCKER ELLIS, LLP</p> <p>8 BY: ANDREA GLINKA PRZYBYSZ, ESQ.</p> <p>9 233 S. Wacker Drive, Suite 6950</p> <p>Chicago, Illinois 60606</p> <p>(312) 624-6322</p> <p>10 andrea.przybysz@tuckerellis.com</p> <p>Representing the Defendant, Janssen and Johnson &amp; Johnson</p> <p>11</p> <p>12 MARCUS &amp; SHAPIRA, LLP</p> <p>13 BY: SCOTT D. LIVINGSTON, ESQ.</p> <p>One Oxford Centre, 35th Floor</p> <p>14 Pittsburgh, Pennsylvania 15219</p> <p>(412) 338-4683</p> <p>15 Livingston@marcus-shapira.com</p> <p>Representing the Defendant, HBC Service Company</p> <p>16</p> <p>17 LOCKE LORD, LLP</p> <p>18 BY: JOHN P. McDONALD, ESQ.</p> <p>19 BY: C. SCOTT JONES, ESQ.</p> <p>20 2200 Ross Avenue</p> <p>Suite 2800</p> <p>21 Dallas, Texas 75201</p> <p>(214) 740-8758</p> <p>22 Jpmcdonald@lockelord.com</p> <p>Representing the Defendant, Henry Schein, Inc.</p> <p>23</p> <p>24</p>
Page 3	Page 5

Page 6	Page 8
1 APPEARANCES: (Cont'd.)	1 APPEARANCES: (Cont'd.)
2	2
3 BARNES & THORNBURG, LLP	3 REED SMITH, LLP
4 BY: WILLIAM A. HAHN, ESQ.	BY: ERIC L. ALEXANDER, ESQ.
5 11 South Meridian Street	4 1301 K Street, NW
6 Indianapolis, Indiana 46204	Suite 1000, East Tower
7 (317) 236-1313	5 Washington, D.C. 20005
8 William.hahn@btlaw.com	(202) 414-9403
9 Representing the Defendant, H.D. Smith	6 ealexander@reedsmit.com
10 FOX ROTHSCHILD, LLP	7 Representing the Defendant,
11 BY: STEPHAN A. CORNELL, ESQ.	AmerisourceBergen
12 2700 Kelly Road	8
13 Suite 300	9
14 Warrington, Pennsylvania 18976	10
15 (215) 918-3680	11
16 scornell@foxrothschild.com	12
17 Representing the Defendant, Prescription	13
18 Supply Inc.	14
19 ZUCKERMAN SPAEDER, LLP	15
20 BY: ADAM L. FOTIADES, ESQ.	16
21 1800 M. Street NW, Suite 1000	17
22 Washington, D.C. 20036	18
23 (202) 778-1845	19
24 afotiaDES@zuckerman.com	20
25 Representing the Defendant, CVS	21
26 ARNOLD & PORTER KAYE SCHOLER, LLP	22
27 BY: JOANNA PERSIO, ESQ.	23
28 BY: JOSHUA M. DAVIS, ESQ.	24
29 601 Massachusetts Avenue, NW	
30 Washington, D.C. 20001	
31 (202) 942-5866	
32 Joanna.persio@arnoldporter.com	
33 Representing the Defendants, Endo	
34 Health Solutions; Endo Pharmaceuticals,	
35 Inc.; Par Pharmaceutical Companies, Inc.,	
36 f/k/a Par Pharmaceutical Holdings, Inc.	
37	
38	
39	
40	
41	
42	
43	
44	
45	
46	
47	
48	
49	
50	
51	
52	
53	
54	
55	
56	
57	
58	
59	
60	
61	
62	
63	
64	
65	
66	
67	
68	
69	
70	
71	
72	
73	
74	
75	
76	
77	
78	
79	
80	
81	
82	
83	
84	
85	
86	
87	
88	
89	
90	
91	
92	
93	
94	
95	
96	
97	
98	
99	
100	
101	
102	
103	
104	
105	
106	
107	
108	
109	
110	
111	
112	
113	
114	
115	
116	
117	
118	
119	
120	
121	
122	
123	
124	
125	
126	
127	
128	
129	
130	
131	
132	
133	
134	
135	
136	
137	
138	
139	
140	
141	
142	
143	
144	
145	
146	
147	
148	
149	
150	
151	
152	
153	
154	
155	
156	
157	
158	
159	
160	
161	
162	
163	
164	
165	
166	
167	
168	
169	
170	
171	
172	
173	
174	
175	
176	
177	
178	
179	
180	
181	
182	
183	
184	
185	
186	
187	
188	
189	
190	
191	
192	
193	
194	
195	
196	
197	
198	
199	
200	
201	
202	
203	
204	
205	
206	
207	
208	
209	
210	
211	
212	
213	
214	
215	
216	
217	
218	
219	
220	
221	
222	
223	
224	
225	
226	
227	
228	
229	
230	
231	
232	
233	
234	
235	
236	
237	
238	
239	
240	
241	
242	
243	
244	
245	
246	
247	
248	
249	
250	
251	
252	
253	
254	
255	
256	
257	
258	
259	
260	
261	
262	
263	
264	
265	
266	
267	
268	
269	
270	
271	
272	
273	
274	
275	
276	
277	
278	
279	
280	
281	
282	
283	
284	
285	
286	
287	
288	
289	
290	
291	
292	
293	
294	
295	
296	
297	
298	
299	
300	
301	
302	
303	
304	
305	
306	
307	
308	
309	
310	
311	
312	
313	
314	
315	
316	
317	
318	
319	
320	
321	
322	
323	
324	
325	
326	
327	
328	
329	
330	
331	
332	
333	
334	
335	
336	
337	
338	
339	
340	
341	
342	
343	
344	
345	
346	
347	
348	
349	
350	
351	
352	
353	
354	
355	
356	
357	
358	
359	
360	
361	
362	
363	
364	
365	
366	
367	
368	
369	
370	
371	
372	
373	
374	
375	
376	
377	
378	
379	
380	
381	
382	
383	
384	
385	
386	
387	
388	
389	
390	
391	
392	
393	
394	
395	
396	
397	
398	
399	
400	
401	
402	
403	
404	
405	
406	
407	
408	
409	
410	
411	
412	
413	
414	
415	
416	
417	
418	
419	
420	
421	
422	
423	
424	
425	
426	
427	
428	
429	
430	
431	
432	
433	
434	
435	
436	
437	
438	
439	
440	
441	
442	
443	
444	
445	
446	
447	
448	
449	
450	
451	
452	
453	
454	
455	
456	
457	
458	
459	
460	
461	
462	
463	
464	
465	
466	
467	
468	
469	
470	
471	
472	
473	
474	
475	
476	
477	
478	
479	
480	
481	
482	
483	
484	
485	
486	
487	
488	
489	
490	
491	
492	
493	
494	
495	
496	
497	
498	
499	
500	
501	
502	
503	
504	
505	
506	
507	
508	
509	
510	
511	
512	
513	
514	
515	
516	
517	
518	
519	
520	
521	
522	
523	
524	
525	
526	
527	
528	
529	
530	
531	
532	
533	
534	
535	
536	
537	
538	
539	
540	
541	
542	
543	
544	
545	
546	
547	
548	
549	
550	
551	
552	
553	
554	
555	
556	
557	
558	
559	
560	
561	
562	
563	
564	
565	
566	
567	
568	
569	
570	
571	
572	
573	
574	
575	
576	
577	
578	
579	
580	
581	
582	
583	
584	
585	
586	
587	
588	
589	
590	
591	
592	
593	
594	
595	
596	
597	
598	
599	
600	
601	
602	
603	
604	
605	
606	
607	
608	
609	
610	
611	
612	
613	
614	
615	
616	
617	
618	
619	
620	
621	
622	
623	
624	
625	
626	
627	
628	
629	
630	
631	
632	
633	
634	
635	
636	
637	
638	
639	
640	
641	
642	
643	
644	
645	
646	
647	
648	
649	
650	
651	
652	
653	
654	
655	
656	
657	
658	
659	
660	
661	
662	
663	
664	
6	

<p style="text-align: right;">Page 10</p> <p>1 TELEPHONIC/STREAMING APPEARANCES: 2 (Cont'd.)</p> <p>3 LEVIN PAPANTONIO THOMAS MITCHELL 4 RAFFERTY PROCTOR, P.A. BY: JEFF GADDY, ESQ. 5 316 Baylen Street Pensacola, Florida 32502 (850) 435-7000 jgaddy@levinlaw.com</p> <p>6 - and -</p> <p>7 BARON &amp; BUDD, P.C. 8 BY: WILLIAM G. POWERS, ESQ. 9 600 New Hampshire Avenue, NW The Watergate, Suite 10-A Washington, D.C. 20037 10 (202) 333-4562 Wpowers@baronbudd.com 11 Representing the Plaintiffs</p> <p>12 FOLEY &amp; LARDNER, LLP 13 BY: KATY E. KOSKI, ESQ. 14 111 Huntington Avenue, Suite 2500 Boston, Massachusetts 02199 (617) 502-3281 15 Kkoski@foley.com Representing Actavis Laboratories 16 UT, Inc., Actavis Pharma, Inc., ANDA, Inc., and Actavis, Inc. 17 (n/k/a Allergan Finance, LLC, Watson Laboratories, Inc.)</p> <p>18 CAVITCH FAMILIO &amp; DURKIN, CO., L.P.A. BY: ERIC J. WEISS, ESQ. 19 1300 E. 9th Street Cleveland, Ohio 44114 (216) 621-7860 eweiss@cavitch.com 22 Representing the Defendant, Discount Drug Mart</p> <p>23</p> <p>24</p>	<p style="text-align: right;">Page 12</p> <p>1 2 I N D E X 3 4 5 Testimony of: 6 CRAIG J. McCANN, Ph.D., CFA 7 8 By Ms. McEnroe 16 9 By Mr. Eppich 253 10 By Mr. Boehm 323 11 12 - - - 13 E X H I B I T S 14 - - - 15 NO. DESCRIPTION PAGE 16 McCann-1 Notice of Videotaped 17 Deposition 17 18 McCann-2 Banker Box 23 Initial Report 19 1-11 Appendices Supplemental Report 20 A through F Appendices Second Supplemental Report 21 Appendices 1 and 2 &amp; Attachment 22 23 24</p> <p style="text-align: right;">Page 11</p> <p>1 TELEPHONIC/STREAMING APPEARANCES: 2 (Cont'd.)</p> <p>3 4 BAILEY WYANT PLLC 5 BY: JUSTIN C. TAYLOR, ESQ. 500 Virginia Street East 5 Suite 600 Charleston, West Virginia 25301 6 (304) 345-4222 Jtaylor@baileywyant.com 7 Representing the Defendant, West Virginia Board of Pharmacy</p> <p>8 9 ALSO PRESENT: 10 11 Josh Gay, Legal Investigator Katie Mayo, Paralegal 12 (Levin Papantonio - via telephone) 13 Lora Chafin, Paralegal (Greene Ketchum - via telephone) 14 15 Amy Kennedy, Paralegal (Weisman Kennedy - via telephone) 16 17 VIDEOTAPE TECHNICIAN: 18 Devyn Mulholland</p> <p>19 20 21 22 23 24</p> <p style="text-align: right;">Page 13</p> <p>1 2 E X H I B I T S (Cont'd.) 3 4 5 NO. DESCRIPTION PAGE 6 McCann-3 Expert Report of 24 Craig J. McCann, Ph.D. 7 3/25/19 8 McCann-4 Appendix 1 105 Resumé 9 10 McCann-5 Appendix 2 111 Correction to the ARCOS Data 11 12 McCann-6 Expert Report of 231 Professor David Cutler 3/25/19 13 14 McCann-7 Morgan Keegan v 248 Garrett Synopsis 15 McCann-8 Appendix 6, List of 315 Reporter Company 16 Families 17 McCann-9 Appendix D, 321 Additional McKesson 18 Figures and Tables 19 McCann-10 Excessive Purchases 370 Schedule II 20 Exhibit P 21 CAH_MDL_PRIORPROD_DEA07_ 01384160-R-61 22 23 24</p>
---	---

Page 14	Page 16
<p>1 - - - 2 DEPOSITION SUPPORT INDEX 3 - - - 4 5 Direction to Witness Not to Answer 6 PAGE LINE None. 7 8 Request for Production of Documents 9 PAGE LINE None. 10 11 Stipulations 12 PAGE LINE None. 13 14 Questions Marked 15 PAGE LINE None. 16 17 18 19 20 21 22 23 24</p>	<p>1 EXAMINATION 2 - - - 3 BY MS. McENROE: 4 Q. Good morning, Dr. McCann. 5 A. Good morning. 6 Q. My name is Elisa McEnroe. 7 I'm counsel for Rite Aid of Maryland, 8 Inc., doing business as Mid-Atlantic 9 Customer Support Center. Just call that 10 Rite Aid. I'll be asking you questions 11 this morning. You've been deposed 12 before, correct? 13 A. Yes. 14 Q. And you are here as an 15 expert witness on behalf of the 16 plaintiffs in the National Prescription 17 Opiate Litigation; is that correct? 18 A. Yes. 19 Q. You've submitted a number of 20 reports in this matter, correct? 21 A. Yes. 22 Q. An initial report on 23 March 25th and two supplemental reports 24 thereafter?</p>
Page 15	Page 17
<p>1 - - - 2 THE VIDEOGRAPHER: We are 3 now on the record. My name is 4 Devyn Mulholland. I'm a 5 videographer with Golkow 6 Litigation Services. 7 Today's date is May 9, 2019. 8 The time is 10:03 a.m. 9 This video deposition is 10 being held in Washington DC, in 11 the matter of National 12 Prescription Opiate Litigation. 13 The deponent is Craig J. 14 McCann. 15 Counsel will be noted on the 16 stenographic record. 17 The court reporter is 18 Michelle Gray and will now swear 19 in the witness. 20 - - - 21 ... CRAIG J. McCANN, Ph.D., CFA, 22 having been first duly sworn, was 23 examined and testified as follows: 24 - - -</p>	<p>1 A. Yes. 2 Q. You understand that you're 3 appearing here today pursuant to a 4 deposition notice? 5 A. Yes. 6 Q. I'd like to hand you what 7 I've marked as Exhibit 1. 8 (Document marked for 9 identification as Exhibit 10 McCann-1.) 11 THE WITNESS: Thank you. 12 BY MS. McENROE: 13 Q. And this is a copy of that 14 deposition notice, correct? 15 A. Yes. 16 Q. So I know you've been 17 deposed a number of times before. Just a 18 couple quick reminders as we get going. 19 Especially for this litigation, we're 20 quite pressed for time, although we have 21 two days with you, 14 hours. So a number 22 of different counsel are going to ask you 23 questions through the two days. And 24 you're going to see that we're going to</p>

Page 18	Page 20
<p>1 try and move things along pretty    2 expeditiously. So we ask that you help    3 us cooperate with that.</p> <p>4 Of course we want you to get    5 complete answers as intended on the    6 record, but just so you understand    7 upfront, there will be some sensitivity    8 to the time throughout the two days.</p> <p>9 Do you understand that?</p> <p>10 A. I do.</p> <p>11 Q. And you're here to answer    12 our questions and hopefully we won't    13 speak over one another. I ask that you    14 let me finish my questions and I will do    15 my best to let you finish your answers.</p> <p>16 You understand?</p> <p>17 A. I will. I do. Thank you.</p> <p>18 Q. And if you ever need a    19 break, just let us know. My only request    20 is that you finish any question that    21 is -- you answer any question that is    22 pending at the time of the break. All    23 right?</p> <p>24 A. Yes.</p>	<p>1 Q. Have you worked with    2 Mr. Mougey before?</p> <p>3 A. Yes.</p> <p>4 Q. On how many cases?</p> <p>5 A. It depends a little bit on    6 how you count the cases --</p> <p>7 Q. Sure.</p> <p>8 A. -- because my office    9 processes a lot of cases that I'm not    10 personally involved in.</p> <p>11 The cases that I'm    12 personally involved in would be in the    13 dozens, but out of the three or 4,000    14 cases I've been involved in, I don't know    15 how to quantify it more than to say some    16 dozens, anyway.</p> <p>17 Q. When did you first meet    18 Mr. Mougey?</p> <p>19 A. When we were both much    20 younger. I think almost 20 years ago.    21 15 years ago, at least, but maybe even a    22 little bit longer.</p> <p>23 Q. And did you meet in a    24 professional setting?</p>
<p>1 Q. One last thing is, if you    2 don't speak up, I'm going to assume that    3 you understand my question. So if you    4 don't understand it, and especially when    5 we get into some of the more technical    6 things. I may not ask it a way that    7 makes exact sense to you. So just let me    8 know, and then I can always try to    9 rephrase the question or ask it a    10 different way. Okay?</p> <p>11 A. Yes.</p> <p>12 Q. Who contacted you first in    13 connection with this case?</p> <p>14 A. I believe it was Mr. Mougey.</p> <p>15 Q. When was that?</p> <p>16 A. Approximately a year ago.</p> <p>17 So early last year, February or March of    18 2018 is what I recall.</p> <p>19 Q. And have you been working on    20 this case since that time?</p> <p>21 A. Or shortly thereafter. So I    22 was contacted sometime a few weeks or a    23 month perhaps before I would say that we    24 actually started working on the case.</p>	<p>1 A. Yes.</p> <p>2 Q. In connection with a case    3 that you were working on?</p> <p>4 A. Yes.</p> <p>5 Q. As an expert witness?</p> <p>6 A. Yes.</p> <p>7 Q. On the same side as    8 Mr. Mougey?</p> <p>9 A. Yes.</p> <p>10 Q. And prior to this    11 litigation, what's the most recent other    12 case that you've worked on with    13 Mr. Mougey?</p> <p>14 A. I testified at a FINRA    15 arbitration, securities arbitration    16 hearing with Mr. Mougey about a year ago.</p> <p>17 Q. Are you working with    18 Mr. Mougey on any cases unrelated to the    19 opioid litigation at present?</p> <p>20 A. Yes. At least my office is    21 involved in processing FINRA arbitrations    22 for Mr. Mougey's firm.</p> <p>23 I don't think in recent    24 months, maybe even since last summer I've</p>

<p style="text-align: right;">Page 22</p> <p>1 personally been involved in those. But 2 we have done some work. My firm has done 3 some work for Mr. Mougey's firm in the 4 last year.</p> <p>5 Q. And when you say FINRA 6 arbitrations, you are referring to 7 finance-related type of arbitrations; is 8 that correct?</p> <p>9 A. Correct.</p> <p>10 Q. Mostly having to do with 11 securities?</p> <p>12 A. Entirely.</p> <p>13 Q. Okay. A little bit of 14 housekeeping upfront.</p> <p>15 So you mentioned that you 16 had submitted an expert report, and you 17 agree that there were two supplements. 18 You included with those -- that report 19 and those two supplements some 20 attachments and exhibits, correct?</p> <p>21 A. Yes.</p> <p>22 Q. So that we have it, this is 23 what we believe to be the entirety of 24 what you've submitted thus far. And</p>	<p style="text-align: right;">Page 24</p> <p>1 I'm going to hold onto it. 2 MR. MOUGEY: That sounds 3 good.</p> <p>4 BY MS. McENROE:</p> <p>5 Q. To make things a little bit 6 easier, what we've done is for Exhibit 3, 7 we've bound together your original report 8 from March 25th -- and I'll hand this to 9 you in a minute so you can look at it, 10 with one addition.</p> <p>11 We swapped in what I think 12 you referred to as an errata page, at 13 Page 35?</p> <p>14 A. Yes.</p> <p>15 Q. And then we included behind 16 a blue slip sheet the first supplemental 17 report that was submitted on April 3, 18 2019, without any of the attachments or 19 exhibits. And then behind the next blue 20 slip sheet, the April 15th supplemental 21 report. Okay?</p> <p>22 Do you see that?</p> <p>23 A. Thank you. Yes.</p> <p>24 (Document marked for</p>
<p style="text-align: right;">Page 23</p> <p>1 we're going to go through it in a little 2 bit more detail. So that the record is 3 complete later on, and in case any other 4 defendant wants to refer back to it, this 5 is what we believe is the entirety of 6 what you've submitted to us thus far in 7 terms of report, supplement, appendices, 8 and exhibits. Not all the supporting 9 background code. That was a little too 10 much to try to print out that your 11 counsel has provided.</p> <p>12 But we're going to mark this 13 as Exhibit 2. And we're just going to 14 hold onto it. But if at any time you 15 want to refer to anything that you've 16 submitted to us, you just let us know, 17 and we can grab it out of Exhibit 2. Is 18 that right?</p> <p>19 A. Yes. Thank you.</p> <p>20 (Document marked for 21 identification as Exhibit 22 McCann-2.)</p> <p>23 BY MS. McENROE:</p> <p>24 Q. I put a sticker on the box.</p>	<p style="text-align: right;">Page 25</p> <p>1 identification as Exhibit 2 McCann-3.)</p> <p>3 BY MS. McENROE:</p> <p>4 Q. We're going to mark that as 5 Exhibit 3.</p> <p>6 And today, if we're 7 referring -- today or tomorrow, if we're 8 referring to paragraphs and whatnot, in 9 any of the reports you've submitted, it's 10 probably easiest if we refer to this 11 version. But if you do want any of the 12 appendices or exhibits for completeness, 13 we can definitely arrange that. All 14 right?</p> <p>15 A. Thank you. Thank you.</p> <p>16 Q. So take a quick second and 17 look at that with me, just to make sure 18 that we are speaking the same language 19 here.</p> <p>20 So the first cover sheet is, 21 as I said, the March 25th report, the 22 original report that you submitted, 23 correct?</p> <p>24 A. Yes.</p>

<p>1 Q. Does that look familiar, 2 that's appropriate behind it, generally 3 speaking. You don't need to study it, 4 but --</p> <p>5 A. Yes.</p> <p>6 Q. -- that that's your report?</p> <p>7 And this Page 35 we 8 included, that is the errata sheet we 9 just got this week correcting a figure?</p> <p>10 A. Correct.</p> <p>11 Q. In the chart, and in the 12 body?</p> <p>13 A. Correct.</p> <p>14 Q. And what you'll -- what 15 you'll see we've done is we've 16 paper-clipped it in. So if you want to 17 see the older one you can just flip it.</p> <p>18 A. Thank you.</p> <p>19 Q. Okay?</p> <p>20 Then if you please keep 21 turning until you get to the first blue 22 slip sheet. That's your supplemental 23 expert report dated April 23rd; is that 24 correct?</p>	<p>Page 26</p> <p>1 Q. So let's turn in your first 2 report, your March 25th report to 3 Paragraph 10. And this is under a 4 heading that says "Assignment." 5 Do you see that?</p> <p>6 A. Yes.</p> <p>7 Q. And Paragraph 10 says, and 8 I'll try to read slow for Michelle: "I 9 have been asked by plaintiff's counsel to 10 document how I processed, validated and 11 augmented opioid transaction data 12 produced by the Drug Enforcement 13 Administration, DEA, and from the 14 defendants."</p> <p>15 Did I read that correctly?</p> <p>16 A. Yes.</p> <p>17 Q. And that opioid transaction 18 data produced by the DEA you are talking 19 about, that's the ARCOS data?</p> <p>20 A. Correct.</p> <p>21 Q. Okay. The next Paragraph 11 22 says, "I have been asked to summarize 23 shipments in the ARCOS data, especially 24 those shipments into Cuyahoga County and</p>
<p>1 A. Yes.</p> <p>2 Q. And then please proceed 3 forward to the next blue slip sheet, is 4 your second supplemental expert report 5 dated April 15th, correct?</p> <p>6 A. Yes.</p> <p>7 Q. Why were you retained in 8 this litigation?</p> <p>9 A. Because my firm had special 10 expertise in handling large datasets and 11 producing reliable results.</p> <p>12 Q. In the securities setting?</p> <p>13 A. In any setting. Data is 14 data.</p> <p>15 Q. But in the security setting 16 in particular?</p> <p>17 A. No, not necessarily.</p> <p>18 Q. In any of the cases you've 19 done previously, have you ever worked 20 with ARCOS data?</p> <p>21 A. No.</p> <p>22 Q. Has anyone at your firm ever 23 worked with ARCOS data to your knowledge?</p> <p>24 A. No.</p>	<p>Page 27</p> <p>1 Summit County."</p> <p>2 Did I read that correctly?</p> <p>3 A. Yes.</p> <p>4 Q. And then the third in your 5 assignment sections is, "I have also been 6 asked to report the results of applying 7 certain algorithms to the ARCOS data."</p> <p>8 Did I read that correctly?</p> <p>9 A. Yes.</p> <p>10 Q. And does that section 11 accurately summarize your assignment in 12 this litigation?</p> <p>13 A. As accurately, as fully as 14 three sentences can. If I were to, you 15 know, explain it a little bit more fully, 16 if I were to add three more sentences or 17 nine more sentences, it would be a more 18 complete description, but I think it's 19 a -- it's a good three-sentence 20 description of my assignment.</p> <p>21 Q. So could you give me the 22 three more sentences of what's been left 23 out of this assignment so I can 24 understand, please?</p> <p>Page 29</p>

<p>1        A. Well, there's been nothing 2 left out. I'm just saying that I could 3 offer some more detail. 4        So for instance -- I haven't 5 thought through how I would write three 6 more sentences. I was trying to be as 7 succinct as possible there. 8        Q. Sure. 9        A. But for example, in the 10 third sentence I say, "I have also been 11 asked to report the results of applying 12 certain algorithms to the ARCos data." 13        Now, later when we get to 14 that section of the report, you'll see 15 that those algorithms are -- are also 16 applied to some supplement from the 17 defendants' individual transaction data. 18        And the same thing with the 19 prior sentence where I write, "I have 20 been asked to summarize shipments in the 21 ARCos data, especially those shipments 22 into Cuyahoga County and Summit County." 23        So I -- it is correct that I 24 do summarize the shipments in the ARCos</p>	<p>Page 30</p> <p>1        Q. At this point you have been 2 focused on, and you mention in 3 Paragraph 11 here, Cuyahoga and Summit 4 Counties. Have you been retained by 5 plaintiffs with respect to any other 6 litigation in the opioids MDL, which is 7 the multi-district -- district litigation 8 that's organized in the Northern District 9 of Ohio, if you know? 10       A. I'm sorry, I need a little 11 bit of qualification -- 12       Q. Sure. Absolutely. 13       A. -- in that -- in that 14 question. 15       Q. Let me -- let me ask it a 16 different way. 17       So Cuyahoga and Summit 18 Counties are discussed in your reports. 19 Do you know if you've been retained by 20 plaintiffs to provide any opinions or to 21 do any data handling for any other 22 plaintiffs -- 23       MR. MOUGEY: Objection. 24 BY MS. McENROE:</p>
<p>1 data, but I also have included in some of 2 those summaries the individual defendant 3 transaction data. So those are two 4 examples where, if I wanted to add 5 another sentence or another phrase, I'd 6 make that discussion more complete. 7        Those would be some 8 examples. But I actually add those 9 details in the subsequent section. So I 10 think the three-sentence summary of my 11 assignment is fine the way it is. 12       Q. Great. And you had, when 13 I -- when I asked you earlier, asked 14 about why you had been retained. You 15 made reference to handling large 16 datasets, which, in my read, matches with 17 the explanation in the -- in the 18 assignment here in broad strokes. 19       Is there anything other than 20 handling datasets in some way that you're 21 trying to say is part of your assignment 22 in this litigation? 23       A. Not that I can think of as I 24 sit here.</p>	<p>Page 31</p> <p>1        Q. -- other than Cuyahoga and 2 Summit Counties? 3        A. Well, there's a -- that's a 4 compound question. And so without 5 misleading you, I'll just say yes. The 6 answer to that question would be yes. 7       Q. Have you been retained for 8 other federal cases, do you know? 9       MR. MOUGEY: Objection. 10       THE WITNESS: I'm not sure 11 as I sit here. 12 BY MS. McENROE: 13       Q. Have you been retained for 14 any state cases, opioid related? 15       A. I believe so. 16       Q. Which states? 17       A. We've handled some data for 18 a handful of states that I'll -- I'll 19 describe in a minute, I'll list to the 20 best of my ability in a minute. 21       I'm not sure whether -- 22 well, I am certain that we have not been 23 retained as testifying experts in any of 24 those cases.</p>

<p>1            And I'm not completely sure    2 of -- of how much work we may have done    3 for one state versus another.</p> <p>4            We have been retained to    5 provide summary reports like what you see    6 attached to the first report, what I    7 would call pharmacy reports or labeler    8 reports or distributor reports,    9 summarizing shipments into counties and    10 states.</p> <p>11          We've been retained to    12 provide those preliminary high level    13 summaries to most of the states in the    14 country. And then we've been retained to    15 do a little bit of additional analysis    16 for three or four or five states,    17 Delaware, Oklahoma, Ohio, New York, and    18 Florida are the ones that come to mind,    19 those five, but varying greatly in how    20 much work we've done from almost nothing    21 to a little bit more than nothing.</p> <p>22          Q. Aside from the reports that    23 we've already talked about today and    24 marked as Exhibits 2 and 3, have you</p>	<p>Page 34</p> <p>1            Q. You got my next question.    2 So you're billing through the Securities    3 Litigation and Consulting Group; is that    4 correct?</p> <p>5          A. Correct.</p> <p>6          Q. And if I call that SLCG,    7 you'll know what I'm talking about today?</p> <p>8          A. Yes.</p> <p>9          Q. What is your relationship to    10 SLCG?</p> <p>11         A. I own it.</p> <p>12         Q. You own it. Does anybody    13 else own part of it with you?</p> <p>14         A. No.</p> <p>15         Q. And are you the founder as    16 well of SLCG?</p> <p>17         A. Yes.</p> <p>18         Q. Are there any other    19 principals or partners with you?</p> <p>20         A. Well, a principal or partner    21 is sometimes more of a marketing title    22 than a legal ownership. So there are    23 other people who we refer to as    24 principals. And I might refer to a peer</p>
<p>Page 35</p> <p>1          submitted any other expert reports in an    2 opioids-related litigation, whether it's    3 in federal or state court?</p> <p>4          A. No.</p> <p>5          Q. Are you engaged for any    6 other purpose in connection with the    7 opioids litigation? And what I mean by    8 that is, for example, to write discovery    9 responses on behalf of plaintiffs?</p> <p>10         A. No.</p> <p>11         Q. You're getting paid in    12 connection with your work on behalf of    13 plaintiffs in this litigation?</p> <p>14         A. Yes.</p> <p>15         Q. And \$475 an hour?</p> <p>16         A. Yes, that's correct.</p> <p>17         Q. Just --</p> <p>18         A. I'm sorry.</p> <p>19         Q. Oh, yeah. Go ahead.</p> <p>20         A. That's not quite accurate.</p> <p>21 I personally, I'm not being paid. My    22 firm is billing at \$475 an hour for my    23 time and at lesser amounts for staff    24 working on the project.</p>	<p>Page 37</p> <p>1          as a partner sometimes, but I'm the sole    2 owner.</p> <p>3          Q. Are any other principals,    4 for marketing purposes or otherwise,    5 working on the opioid litigation along    6 with you from SLCG?</p> <p>7          A. Yes.</p> <p>8          Q. Who are they?</p> <p>9          A. I think Mike Yan, Y-A-N.</p> <p>10         Q. And what about Joshua    11 Mallett? Is he a principal?</p> <p>12         A. I don't think we've attached    13 that marketing title to him but he has    14 worked on the project. That's correct.</p> <p>15         Q. What about other SLCG staff    16 members? So Mike Yan as principal, and    17 Joshua Mallett presumably then as staff?</p> <p>18         A. I just don't recall what    19 Joshua's title is. We could look at my    20 website -- at our website and it would    21 tell you what his title is. I'm not    22 recalling as I sit here. But in addition    23 to Mike and Joshua, Chuan, C-H-U-A-N,    24 Qin, Q-I-N, has worked on the project.</p>

<p style="text-align: right;">Page 38</p> <p>1   Regina Meng, M-E-N-G. Susan Song, 2   S-O-N-G. Briant with an I, B-R-I-A-N-T, 3   Lyu, I think his last name is L-I-U 4   (sic). There may be a couple of other 5   staff who have worked on the project, 6   Lanxi, L-A-N-X-I. And I apologize I'm 7   blanking on her last name. It's another 8   Chinese last name. Again, you'll find 9   her on our website. There may be one or 10   two additional names. But those are the 11   people that come to mind who have worked 12   on the project over the last year.</p> <p>13   Q. Are they all still -- or I 14   should -- strike that.</p> <p>15   Are they all employed by 16   SLCG?</p> <p>17   A. Yes. I'm sorry. I thought 18   your question was SLCG employees who have 19   worked on the project.</p> <p>20   Q. Correct. I just want to 21   make sure they are still employed, is my 22   question.</p> <p>23   A. Yes, they are.</p> <p>24   Q. Have they continuously been</p>	<p style="text-align: right;">Page 40</p> <p>1   A. Yes. Of course there's a 2   lot more than just salary involved before 3   you get to me. But at the end of the 4   year, if there's anything left over it 5   comes to me.</p> <p>6   Q. And that's true of the 7   amount that you get billed out at as 8   well; is that true?</p> <p>9   A. Correct.</p> <p>10   Q. Let's start with Mike Yan 11   just briefly. What is, in broad strokes, 12   his educational background? What's his 13   highest degree if you know?</p> <p>14   A. Yes. He's got a Ph.D. in 15   applied mathematics from -- from UC 16   Davis.</p> <p>17   (Brief interruption.)</p> <p>18   MS. McENROE: Let's give it 19   one second. Off the record.</p> <p>20   THE VIDEOGRAPHER: Off the 21   record.</p> <p>22   (Whereupon, a discussion was 23   held off the record.)</p> <p>24   THE VIDEOGRAPHER: We are</p>
<p style="text-align: right;">Page 39</p> <p>1   employed since they worked on the project 2   as SLCG?</p> <p>3   A. Yes.</p> <p>4   Q. In your report, you wrote 5   that there was a range from 100 to \$350 6   for the staff from SLCG working on this 7   matter. Is that accurate?</p> <p>8   A. Yes. It might be a little 9   bit tighter than that. I'm not sure that 10   anybody is -- anybody's billing rate is 11   \$100 an hour. The lowest billing rate 12   might be 125 or 135. I don't know. But 13   that range certainly covers it.</p> <p>14   Q. And they get billed out and 15   the money then flows to SLCG; is that 16   correct?</p> <p>17   A. Correct.</p> <p>18   Q. And then they get paid some 19   salary, presumably, by SLCG?</p> <p>20   A. Correct.</p> <p>21   Q. And then you -- you 22   personally do profit somewhat from the 23   work that they've done on behalf of SLCG; 24   is that correct?</p>	<p style="text-align: right;">Page 41</p> <p>1   back on the record at 10:27 a.m.</p> <p>2   BY MS. McENROE:</p> <p>3   Q. So we were just talking 4   about Dr. Yan has a Ph.D. in applied 5   mathematics from UC Davis; is that 6   correct?</p> <p>7   A. Yes. I believe it's applied 8   mathematics. If we looked at his bio and 9   his resumé on my website, it might be 10   applied statistics or applied 11   mathematics. And then he did a post-doc 12   for three years at Cal Tech.</p> <p>13   Q. In what?</p> <p>14   A. In the math department.</p> <p>15   Teaching mathematics at Cal Tech.</p> <p>16   Q. Do you intend him to testify 17   in this matter?</p> <p>18   A. No. It's not for me to 19   intend, but I don't -- I don't anticipate 20   that happening.</p> <p>21   Q. Joshua Mallett, is he a 22   Ph.D. as well?</p> <p>23   A. No. He is what I think what 24   we call ABD, all but dissertation, in</p>

Page 42	Page 44
1 accounting from the University of 2 Michigan. 3 Q. Chuan Qin, if I said that 4 correctly. What is that person's highest 5 level of education? 6 A. He also has a Ph.D. in 7 applied mathematics or applied statistics 8 from UC Davis. 9 Q. Regina Meng, her highest 10 level of education? 11 A. She has a master's degree in 12 finance. Might be styled a master's of 13 science in finance at University of 14 Maryland at College Park. 15 Q. Susan Song? 16 A. She has a -- same degree, 17 master's of science in finance from the 18 University of Maryland. 19 Q. Brian Lyu? Lyu? Is that 20 correct? I'm sorry. 21 A. After 20 years I'm still not 22 pronouncing these names right. 23 He has the same or similar 24 degree from John Hopkins. So...	1 A. It would have a pretty big 2 range, if we were not to look at the 3 invoices or the billing records. But 4 it's varied from month to month since we 5 started a year ago. Some months as 6 little as 40 or 50 hours, some months as 7 much as 100 or 125 hours. And so it 8 would just be the sum of those numbers 9 that varied by a month, since we started 10 working on the project early on, maybe 11 even less than 40 or 50 hours. But most 12 of the months would be somewhere between 13 40 and 50 hours, and maybe as much as 14 125 hours. 15 Q. Have you yet invoiced 16 plaintiffs for your work on the opioids 17 litigation? 18 A. Yes. 19 Q. Okay. Have those invoices 20 been paid? 21 A. Yes. 22 Q. How much total, if you know? 23 A. I don't. 24 Q. Can you ballpark that?

Page 43	Page 45

1 Q. A master's?  
2 A. A masters in finance or  
3 master's of science in finance from the  
4 University of -- from John Hopkins.  
5 Q. And was it Lanxi? The last  
6 name I wrote down.  
7 A. Yes.  
8 Q. And what is that person's  
9 highest level of education?  
10 A. It's the same degree. I  
11 think it's from John Hopkins. It might  
12 be from the University of Maryland. We  
13 have to just look at our website or her  
14 resumé to tell you for sure.  
15 Q. Collectively, do you know  
16 how many hours you have yet -- sorry.  
17 Strike that.  
18 Collectively, do you know  
19 how many hours you have worked on the  
20 opioids litigation altogether since your  
21 engagement?  
22 A. No.  
23 Q. Can you give me a ballpark  
24 estimate?

1 A. Yes. Some months, as I  
2 said, my own personal hours, there is a  
3 significant variation. Some months as  
4 little as maybe \$75,000 and some months  
5 as much as 225- or \$250,000.  
6 Q. For a month?  
7 A. Correct.  
8 Q. And that's just from your  
9 time?  
10 A. No. That's -- you are  
11 asking about the firm.  
12 Q. Oh yeah. Got it. Okay.  
13 A. So that would be the firm.  
14 Q. Yeah. And do you have an  
15 estimate on the hours that your staff,  
16 the SLCG staff has worked on this matter  
17 so far?  
18 A. In hours or dollars?  
19 Q. I was going to ask both. So  
20 both would be great.  
21 A. Well, the easiest way for me  
22 to think about it is in -- in dollars  
23 working back from the answers that I just  
24 gave you.

<p style="text-align: right;">Page 46</p> <p>1 Q. Sure.</p> <p>2 A. Right. So my -- my</p> <p>3 involvement at 40 or 50 hours is 15- or</p> <p>4 \$20,000 at \$475 an hour; as much as 60-</p> <p>5 or \$70,000 at 125 hours a month. So my</p> <p>6 time has been roughly proportionate, I</p> <p>7 think, with other people's time. So if I</p> <p>8 billed 20- or \$25,000 in a month, it's</p> <p>9 like that would be likely one of the</p> <p>10 months where we were less active, maybe</p> <p>11 early in the project. And so if the</p> <p>12 invoice was \$75,000, other staff put in</p> <p>13 perhaps \$50,000 worth of time in those</p> <p>14 lesser activity months.</p> <p>15 Just ballparking it at \$200</p> <p>16 an hour, that would be maybe 250 hours.</p> <p>17 And then we did the --</p> <p>18 Q. Collectively or for separate</p> <p>19 individuals?</p> <p>20 A. Oh no, collectively. I have</p> <p>21 no idea individuals. You know, we would</p> <p>22 have to look at the records to tell you.</p> <p>23 I'm just trying to give you --</p> <p>24 Q. Sure.</p>	<p style="text-align: right;">Page 48</p> <p>1 expressed in this litigation?</p> <p>2 A. Yes.</p> <p>3 Q. Are you involved in hiring</p> <p>4 the staff?</p> <p>5 A. I am.</p> <p>6 Q. And interviewing them?</p> <p>7 A. Yes.</p> <p>8 Q. Aside from your hourly rate</p> <p>9 and the hourly rate of the other SLCG</p> <p>10 employees, are you otherwise being</p> <p>11 compensated in any way in connection with</p> <p>12 the opioids litigation?</p> <p>13 A. No.</p> <p>14 Q. You haven't been paid</p> <p>15 anything else or promised anything else?</p> <p>16 A. Of course not.</p> <p>17 Q. Okay. Do you have any</p> <p>18 outstanding invoices at present?</p> <p>19 A. Just the most recent one.</p> <p>20 Just the one that I submitted a week ago</p> <p>21 for -- for April.</p> <p>22 Q. And how much was that one?</p> <p>23 A. I don't remember.</p> <p>24 Q. What did you do, if</p>
<p style="text-align: right;">Page 47</p> <p>1 A. -- the best estimate I can</p> <p>2 as I sit here.</p> <p>3 And then you do the same</p> <p>4 arithmetic for the higher activity</p> <p>5 months. If I put in 125 hours, that</p> <p>6 would come to 50- or \$60,000. And if in</p> <p>7 total we billed \$225,000, it would be</p> <p>8 another 150- or \$160,000 of staff time,</p> <p>9 that would be roughly 800 hours.</p> <p>10 So I -- I'm just giving you</p> <p>11 very broad ranges and estimates based on</p> <p>12 what I think as I sit here.</p> <p>13 Q. Thank you.</p> <p>14 And does that staff, they</p> <p>15 work at your direction; is that correct?</p> <p>16 A. Yes.</p> <p>17 Q. You oversee their work?</p> <p>18 A. I do.</p> <p>19 Q. You check their work?</p> <p>20 A. I do.</p> <p>21 Q. And you approve their work?</p> <p>22 A. I do.</p> <p>23 Q. And you are adopting some of</p> <p>24 their work in the opinions you've</p>	<p style="text-align: right;">Page 49</p> <p>1 anything, to prepare for today's</p> <p>2 deposition?</p> <p>3 A. Well, I did a year's worth</p> <p>4 of work and supervised my staff doing</p> <p>5 that work.</p> <p>6 I wrote a significant report</p> <p>7 and two smaller supplements. I, as part</p> <p>8 of that, reviewed a lot of material, did</p> <p>9 a lot of analysis. And then more</p> <p>10 recently went over some of that with --</p> <p>11 with attorneys in my office and with my</p> <p>12 staff.</p> <p>13 Q. I want to ask you a couple</p> <p>14 questions about what you just said. So</p> <p>15 you said attorneys in my office. Does</p> <p>16 SLCG employ attorneys, or is it that</p> <p>17 outside attorneys came and physically</p> <p>18 were in your office?</p> <p>19 A. We don't employ attorneys.</p> <p>20 It's employee -- lawyer -- sorry, we</p> <p>21 don't employ lawyers. What I meant to</p> <p>22 refer to there is attorneys coming to my</p> <p>23 office to discuss the deposition.</p> <p>24 Q. Who?</p>

<p style="text-align: right;">Page 50</p> <p>1       A. So there would be three: 2 Page Poerschke, Ty or Tyler Hudson, and 3 Jeff Gaddy, G-A-D-D-Y. 4       Q. When was that? 5       A. I may not get the date 6 exactly right, but two weeks ago today 7 for part of the day, one week ago today 8 for part of a day, and yesterday for a 9 part of the day. 10      Q. Aside from the three 11 attorneys you named, have you met with 12 any other attorneys to prepare for your 13 deposition? 14      A. No. Over breakfast this 15 morning, I -- I had coffee with 16 Mr. Mougey, but I wouldn't call that 17 preparing for my deposition. 18      Q. And going back to your 19 answer before, about what you did to 20 prepare for today's deposition. You 21 mentioned that you reviewed a lot of 22 material, separate from just reviewing 23 your report. What were you referring to 24 there?</p>	<p style="text-align: right;">Page 52</p> <p>1       came to mind as material I reviewed or 2 considered as I was writing these 3 reports. I -- there's not anything 4 necessary for the results that I report 5 in this report that I know of, as I sit 6 here. If -- if there is -- there may be 7 additional items, as I say in 8 Paragraph 9(m), additional items in 9 footnotes, referred to in the text below. 10       Other than what's in this 11 paragraph and those items in the text and 12 footnotes, I'm not aware of anything 13 else. 14       Q. Just so the record is clear, 15 aside from documents or items cited in 16 your reports, did you consider any other 17 materials in forming your opinions in 18 this case? 19       A. I don't recall. Not that 20 I'm sitting -- not that I can think of as 21 I'm sitting here. 22       Q. Okay. Have you ever seen 23 any deposition transcripts from this 24 case?</p>
<p style="text-align: right;">Page 51</p> <p>1       A. Well, as I describe in the 2 report, we received data and documents 3 starting back as early as April of last 4 year, maybe even just a little bit before 5 that. I'm not 100 percent clear on that 6 as I sit here. But since 13 months ago, 7 we were receiving documents and data. 8 And that's what I was referring to when I 9 said that I reviewed a lot of material. 10      Q. Are the materials you're 11 referring to listed in your reports? 12       So we can take a look. You 13 have in front of you your March 25th 14 report. If you flip back a page, to 15 Section 2, "Materials Reviewed." You'll 16 see there's a section here listing a 17 number of things. 18       Is this the description, 19 combined with the materials reviewed 20 sections in the two supplemental reports 21 that you're referring to? 22       A. Well, it may not be 23 exhaustive of everything I've looked at 24 over the last 13 months. But it's what</p>	<p style="text-align: right;">Page 53</p> <p>1       A. No, I don't think so. 2       Q. Have you ever asked to see 3 any deposition transcripts from this 4 case? 5       A. No. 6       Q. We've collected up your 7 reports. And I know we've marked the 8 full set of them. Do these -- do -- do 9 your reports represent the full sum of 10 opinions you intend to offer in this 11 litigation? 12       A. With some minor 13 qualifications, there might be some small 14 qualitative differences between the 15 opinions that I would ultimately express 16 and what's included here. 17       And then of course whatever 18 the court requests. If the court 19 requests any additional analysis, or if 20 it's determined some additional analysis 21 would be helpful to the court, I fully 22 intend to, of course, do that work and 23 offer those opinions. 24       Q. What small qualitative</p>

<p style="text-align: right;">Page 54</p> <p>1 changes do you anticipate making before 2 trial? 3 A. Well, for instance, when 4 we -- when I -- I discuss the defendants' 5 transaction production, I identify a 6 number of defendants whose production 7 seems to fall short of what they were 8 submitting to ARCos in realtime. 9 Over the last few months as 10 a result, I think, of requests from 11 plaintiff's counsel, defendants have been 12 supplementing that production after my 13 initial report was filed. In fact, just 14 yesterday, one of the distributors 15 produced the data that we had identified 16 was missing from their earlier 17 production. 18 There are still other 19 defendants that have not filled in gaps 20 in their transaction data, at least where 21 we think there are gaps. So that would 22 be an example where there might be some 23 slight quantitative changes to the 24 opinions that are expressed if the</p>	<p style="text-align: right;">Page 56</p> <p>1 table where a few numbers needed to be 2 edited. So there may be examples like 3 that that I'm not aware of. But there's 4 nothing as I sit here, nothing that I'm 5 aware of where there would be some, 6 again, very small de minimus edit or two. 7 Q. Let's take a look at that 8 page, 35, that errata sheet. 9 A. Sure. 10 Q. And we did our best to print 11 it out. So you can see up in the text 12 there's a strikethrough -- 13 A. Yes. 14 Q. -- on a portion of that 15 figure. And that figure has been updated 16 in the Table 15 down below; is that 17 correct? 18 A. Correct. 19 Q. Have there been any other 20 changes to this Page 35? That was the 21 only one that I had seen, those two, 22 without spending a lot of time studying 23 the whole thing. 24 A. Well, if you look across the</p>
<p style="text-align: right;">Page 55</p> <p>1 defendants continue to produce data as 2 they did yesterday. 3 But I don't anticipate that 4 production to change the opinions that 5 I've expressed here. 6 In fact, the production 7 yesterday I think further strengthens one 8 of the core opinions. 9 Q. Aside from some productions 10 being made later in time, with respect to 11 the documents and data and information 12 that was available to you when you 13 already issued your reports, do you 14 anticipate making any small qualitative 15 changes prior to trial? 16 A. Well, not that I know of as 17 I sit here. But I'm humanly imperfect. 18 As we discussed before we went on the 19 record, there was a small -- maybe we 20 discussed it on the record. There was a 21 small errata to Table 15. And so it 22 doesn't change the opinions in any way at 23 all. But there was one -- one number in 24 the text that needed to be edited and a</p>	<p style="text-align: right;">Page 57</p> <p>1 bottom of Table 15, you'll see in the 2 number of transactions in the report. It 3 says 542,898. 4 Q. Yeah. 5 A. The software and the data 6 that we gave you produces a table that 7 says 542,900. So that's an example of 8 what I think is a truly trivial change. 9 It's maybe a couple of 10 thousandths of one percent difference. 11 And as you read across you'll see the 12 same thing with the MME. The difference 13 there is 300 and -- sorry, 435 MME on 14 four billion MME. 15 So there are very tiny, tiny 16 differences between Table 15 on the 17 errata page and Table 15 that had been 18 put in as a draft in the report in which 19 I hadn't updated. 20 So that's an example where 21 there may be a number that I would change 22 by a few hundredths of a percent or even 23 a few thousandths of a percent. I can 24 explain why that might be.</p>

<p>1            But other than that sort of  2    thing, I don't -- I don't anticipate  3    changing anything other than changing it  4    as a result of the continued production  5    by the defendants.</p> <p>6            The very next page, Page 36,  7    illustrates that. Figure 3 on Page 36  8    will have to be changed because of the  9    data that was produced yesterday.</p> <p>10          Q. So how did errata -- the  11    errata of Page 35 come to be? Did you  12    make -- type in these changes?</p> <p>13          A. No.</p> <p>14          Q. Who did?</p> <p>15          A. Well, the code that we gave  16    you, we actually gave you two pieces of  17    code and two data files that create Table  18    15 for Cardinal Health. This table  19    refers to Cardinal Health.</p> <p>20          And in the production of  21    data and code to you, we gave you two  22    versions -- inadvertently gave you an  23    earlier version of the code and data that  24    produced the version of the table that is</p>	<p>Page 58</p> <p>1    this report. And in fact I certainly of  2    course adopt every sentence that's in  3    this report. But I either wrote it from  4    beginning to period or someone else wrote  5    some version of a sentence that I edited.</p> <p>6          Q. We talked a couple minutes  7    ago about your assignment in this matter.  8    Do you remember that?</p> <p>9          A. Yes.</p> <p>10         Q. Who delivered that  11    assignment to you? I'm looking back, if  12    it's helpful, on Page 4 at Paragraphs 10,  13    11 12. It says, "I have been asked by  14    plaintiff's counsel," to start out.</p> <p>15         So I'm just wondering who  16    actually that was that delivered that  17    assignment to you?</p> <p>18         A. I don't recall it being  19    conveyed by any individual, but rather an  20    understanding that I developed as a  21    result of discussions with attorneys over  22    the past six months -- past, yeah, six  23    months maybe and -- which I summarized in  24    my own words in these three sentences.</p>
<p>1    in the report. And there had been some  2    very slight modification to the data or  3    code. And we gave you that as well. And  4    so what we did was we ran the code that  5    we gave you. And it produces an Excel  6    tab that has the content of Table 15.</p> <p>7    And then someone in my office, Joshua  8    Mallett, I believe, copied and pasted  9    that content which is an Excel file tab  10   into this table.</p> <p>11          And then I, I believe,  12    struck through the 2336 in Paragraph 86  13    which should obviously be 1618.</p> <p>14          Q. Did you type the remainder  15    of your report, the body of it?</p> <p>16          A. Virtually all of it.</p> <p>17    Some -- some portions of it may have been  18    first -- some words, or even sentences  19    may have been first typed by someone else  20    in my office.</p> <p>21          Q. Anyone in particular or just  22    one of the people working with you?</p> <p>23          A. No one in particular. I  24    think I wrote every sentence that's in</p>	<p>Page 59</p> <p>1    Q. From whom did you develop  2    that understanding?</p> <p>3          A. From interactions with  4    primarily three or four lawyers.</p> <p>5          Q. Who?</p> <p>6          A. Maybe -- in total I may have  7    interacted with a dozen lawyers that  8    informed my summary of what my assignment  9    was. But I would say -- I would say  10   primarily Mr. Mougey.</p> <p>11          Q. You said three to four, from  12    the interactions primarily with three to  13    four. So besides Mr. Mougey, who are the  14   other two to three?</p> <p>15          A. I'm not sure to what extent  16    these others might have informed my  17    understanding of what I was being asked  18    to do. But over time I spoke to Paul  19    Farrell, F-A-R-R-E-L-L, Mike Fuller.  20    Page Poerschke, Tyler Hudson, Joe Rice.</p> <p>21          And then on the -- more on  22    the periphery, just other people that I  23    interacted with this on this project over  24    the last six months.</p>

<p>1 Q. Can you list them for me, 2 please, that you can remember? 3 A. Do you need an exhaustive 4 list of who I've interacted with or who I 5 think I interacted with that might have 6 informed my understanding of the 7 assignment? 8 Q. Yes, good question. So 9 throughout you've made reference to 10 plaintiffs' counsel. And I'm just trying 11 to get an understanding, when you do 12 that, to whom you are referring. 13 A. Well, my primary point of 14 contact was Mr. Mougey, although I did 15 have interaction with others, including 16 the ones that I've just identified for 17 you. 18 Q. Did you speak directly with 19 anyone from Cuyahoga County? 20 A. Not that I'm aware of. 21 Q. Summit County? 22 A. Not that I'm aware of. 23 Q. The City of Akron? 24 A. Not that I'm aware of.</p>	<p>Page 62</p> <p>1 but there have been other consultants to 2 the plaintiffs. Maybe a nonlawyer 3 employee of Levin Papantonio or one of 4 the other firms, and then maybe outside 5 consultants, maybe some other testifying 6 experts. 7 But none of those 8 interactions informed my understanding of 9 my assignment or any of the conclusions 10 that I reached. 11 Q. You mentioned that you maybe 12 spoke with outside consultants for 13 plaintiffs. With whom did you speak? 14 A. I don't recall the names. 15 But early on, there were some who I -- I 16 think to be former DEA employees. 17 Oh, I should also add, very 18 early on, we spoke to some current DEA 19 employees about the data. 20 Again, I don't think that 21 any of those discussions affected my 22 understanding of my assignment or the 23 opinions that I expressed, but for 24 completeness, it would include those two</p>
<p>1 Q. City of Cleveland? 2 A. Not that I'm aware of. 3 Q. Did you speak with anyone 4 other than plaintiffs' counsel to form 5 any opinions or understandings you had 6 about any facts in this case? 7 A. Yes. 8 Q. Who? 9 A. Well, my staff. 10 Q. Okay. Outside of your staff 11 and outside of plaintiffs' counsel, did 12 you discuss anything with anyone in 13 connection with this case? 14 A. If that connects up to your 15 prior question, the answer would be no. 16 Q. Not connecting up to my 17 prior question. So just as a brand new 18 question. Aside from plaintiffs' counsel 19 and aside from other of your staff, have 20 you discussed the opioids litigation with 21 anybody else? 22 A. Yes. 23 Q. Who? 24 A. I don't remember their names</p>	<p>Page 63</p> <p>1 categories at least. 2 Q. Do you recall the names of 3 any of the former or current DEA 4 employees with whom you spoke? 5 A. I think if you mention the 6 names it would prompt my memory. But the 7 only one that comes to mind is 8 Mr. Rafalski. But there were two or 9 three others. And the conversation that 10 I had with current DEA employees was just 11 a very brief telephone conference back in 12 March or April of last year, so 13 or 13 14 months ago, about the data we were 14 going to receive, what -- what format it 15 would be in, what size it would be. A 16 little bit of explanation, kind of a 17 preliminary description of the fields 18 that might be in the data. 19 That was a very short call. 20 There were three or four people from the 21 DEA on the call. One person seemed 22 particularly knowledgeable about the 23 data. The entire call -- with -- with 24 attorneys on the call as well, but the</p>

<p>1 entire call was six or eight or 2 ten minutes. That's the only interaction 3 I'm aware of.</p> <p>4 Q. You mentioned that there 5 were attorneys on that phone call with 6 the DEA you were just talking to. Was 7 that counsel for plaintiffs, counsel for 8 defendants, both, do you know?</p> <p>9 A. I think it was counsel for 10 plaintiffs and counsel at the DEA.</p> <p>11 Q. You mentioned in addition to 12 that you maybe spoke to outside 13 consultants that you also maybe spoke to 14 outside experts. You mentioned 15 Mr. Rafalski. Anybody else that comes to 16 mind in terms of plaintiffs' experts with 17 whom you've spoken?</p> <p>18 A. Yes.</p> <p>19 Q. Who?</p> <p>20 A. I recognize three names, I 21 think, who may or may not have filed 22 expert reports. But a Professor 23 Rosenthal, Professor Cutler, and a 24 Ms. Keller. There may be others, but</p>	<p>Page 66</p> <p>1 A. I don't recall if he was in 2 my office just once or if he was in my 3 office twice.</p> <p>4 The first time I believe 5 there were four individuals and 6 Mr. Rafalski is the only name I 7 recognize. And then later there were two 8 or three of that same -- a subset of the 9 first group that had been in my office. 10 And I don't recall whether Mr. Rafalski 11 was one of them or not.</p> <p>12 Q. When you say there were four 13 individuals, to whom are you referring, 14 yourself, Mr. Rafalski and who else?</p> <p>15 A. No, I'm sorry. When I -- I 16 was referring to four individuals, I 17 mean -- my recollection now, 13 or 18 14 months ago, is that when we first got 19 the data, there were three or four former 20 DEA employees in my office to help us 21 understand at a high level what the data 22 was, we were looking at.</p> <p>23 THE COURT REPORTER: If 24 counsel on the phone can actually</p>
<p>1 those are the names that come to mind as 2 people who may have filed expert reports 3 in this case as well.</p> <p>4 Q. When did you speak with 5 Mr. Rafalski?</p> <p>6 A. I believe he was in my 7 office very early on in the process in 8 April or May of last year. And then I 9 believe he was in my office more recently 10 in the last couple of months.</p> <p>11 He was -- I think he has 12 family in the area and he wanted to 13 borrow my conference room. So I didn't 14 have any substantive discussion with him 15 that last time. But he -- he has been in 16 my office once in the last few months to 17 spend a day in my conference room 18 working.</p> <p>19 Q. In terms of substantive 20 discussions with Mr. Rafalski regarding 21 the opioids litigation, was it just the 22 one conversation you had with him in your 23 office early on in April of May -- April 24 or May?</p>	<p>Page 67</p> <p>1 mute themselves? We're getting a 2 lot of feedback here. Thank you.</p> <p>3 BY MS. McENROE:</p> <p>4 Q. And you don't remember who 5 those DEA agents were, correct, former 6 DEA agents?</p> <p>7 A. I remember their faces. I 8 don't remember their names. I'm sorry.</p> <p>9 Q. Did you ever provide 10 anything in writing to Mr. Rafalski?</p> <p>11 A. No.</p> <p>12 Q. Did you ever provide him 13 with any computer code or data?</p> <p>14 A. No, not to my knowledge.</p> <p>15 Q. Did you show him computer 16 code or data when he was in your office?</p> <p>17 A. Not personally. Although, 18 the purpose of him being there, I think, 19 wasn't my request. I'm inferring what 20 the purpose was. But I think the purpose 21 was to look at the data as it was coming 22 in from the DEA.</p> <p>23 It came in in -- in three or 24 four tranches. And when we first got the</p>

<p style="text-align: right;">Page 70</p> <p>1 data, I think they were there to help us 2 understand what the data fields were. 3 Some description in the ARCO handbook. 4 But there's more data in the production 5 than in the -- described in the ARCO 6 handbook.</p> <p>7 And so my recollection is we 8 have a very large computer monitor, but 9 it's -- think of it like a television, 10 40-inch computer monitor, so that we 11 could display all of the data.</p> <p>12 And so he was probably 13 looking at data on the screen. I don't 14 recall him looking at -- at any code. 15 And the only data that I recall him 16 looking at was as it would be displayed 17 on a computer monitor, as we opened the 18 files we received from the DEA.</p> <p>19 Q. You mentioned you spoke with 20 Professor Rosenthal. When was that?</p> <p>21 A. I actually don't recall 22 speaking with her. If I said it that 23 way, I was being imprecise.</p> <p>24 I was in a meeting sitting a</p>	<p style="text-align: right;">Page 72</p> <p>1 than on that occasion. But I did 2 interact with her on that occasion as 3 well, and about the same level, just to 4 say hello, how are you today.</p> <p>5 Q. Aside from Professor 6 Rosenthal, Professor Cutler, and 7 Ms. Keller, was anybody else in that 8 meeting?</p> <p>9 A. Yes.</p> <p>10 Q. Who?</p> <p>11 A. My recollection is it was a 12 large group, approximately 30 or 40 13 people. They were strangers to me, other 14 than a few people, as Professor Cutler 15 and Professor Rosenthal were strangers to 16 me, but I -- I recall the name.</p> <p>17 Mr. Mougey was there.</p> <p>18 Mr. Rice was there. Mr. Farrell was 19 there. I think Ms. Singer from Joe 20 Rice's office was there.</p> <p>21 And then there were a 22 Mr. Sobol, S-O-B-O-L. And -- and then 23 some other people, whether they were 24 consultants or lawyers, I -- I don't</p>
<p style="text-align: right;">Page 71</p> <p>1 few chairs down from Professor Rosenthal, 2 and I don't recall either her or I 3 speaking. She may have spoken a little 4 bit. And so I think I said hello as 5 we -- as we went to get a bagel or a 6 coffee at a break. But I -- so I met 7 her. I don't recall speaking to her 8 other than hello, I'm Craig McCann.</p> <p>9 Q. Who else was in that 10 meeting?</p> <p>11 A. I think Professor Cutler was 12 there.</p> <p>13 Q. Is that when you spoke with 14 Professor Cutler?</p> <p>15 A. Yes. And again I'm not 16 really sure I spoke to him other than 17 saying I -- I was in the same room as the 18 two of them, so I know their names. And 19 I -- if I interacted with them, it was -- 20 it was kind of just civil talk getting 21 some lunch.</p> <p>22 Q. And is that when you also 23 interacted with Ms. Keller?</p> <p>24 A. I interacted with her more</p>	<p style="text-align: right;">Page 73</p> <p>1 know. They were strangers, and I didn't 2 interact with them.</p> <p>3 I was only there myself for 4 a couple of hours in a room about the 5 size of this room, maybe a little bit 6 smaller with a similar intimidating 7 number of people.</p> <p>8 Q. When was this meeting?</p> <p>9 A. I'm not sure. It was 10 sometime last year. Maybe in the summer, 11 but whether it was the early summer or 12 the late summer, I don't recall.</p> <p>13 Q. Beside Professor -- I'm 14 sorry.</p> <p>15 Aside from this one meeting, 16 had you spoken to Professor Rosenthal or 17 Cutler separately at all?</p> <p>18 A. Never.</p> <p>19 Q. Have you ever e-mailed with 20 them or had any other interactions with 21 them?</p> <p>22 A. Never.</p> <p>23 Q. You mentioned that you had 24 more interactions with Ms. Keller than</p>

<p style="text-align: right;">Page 74</p> <p>1 that one meeting. What are those other 2 interactions just in broad strokes, and a 3 little quickly if we could?</p> <p>4 A. Ms. Keller attended a couple 5 of other meetings that I attended. I'm 6 not sure whether it's two or three. And 7 we interacted a little bit otherwise in 8 the presence of the attorneys, either via 9 e-mail or on conference calls, as -- as 10 we were working on the ARCOS data.</p> <p>11 Q. You say as we were working 12 on the ARCOS data. What role, if any, 13 did Ms. Keller play in your opinions?</p> <p>14 A. None.</p> <p>15 Q. Did you provide Ms. Keller 16 with any data or code?</p> <p>17 A. Not directly. I don't know 18 whether counsel provided Ms. Keller with 19 any data that we processed or developed.</p> <p>20 Q. Just a couple quick 21 questions and then I'd like to move on if 22 we could. You made some references to 23 having interacted with other consultants.</p> <p>24 In connection with this</p>	<p style="text-align: right;">Page 76</p> <p>1 hosted by one of the plaintiffs' 2 attorneys, Mr. Sobol I think. And they 3 provided us with some IQVIA data -- 4 I-Q-V-I-A data -- which we reviewed but 5 did not inform any of my opinions.</p> <p>6 Q. What about the Pacific 7 Institute of Research and Evaluation?</p> <p>8 A. No.</p> <p>9 Q. When did you decide to 10 supplement your report the first time?</p> <p>11 Again, if it's helpful to you, we can 12 turn to the first supplemental report, is 13 dated April 3rd, 2019.</p> <p>14 A. There's only eight or 15 ten days between these two. So in the 16 first few days after the main report was 17 filed, I was contacted and told that 18 some -- some of our early work product, 19 graphs or tables from the ARCOS data, had 20 been used in depositions, and the 21 attorneys wanted me to supplement the 22 report adopting that work product. It is 23 our work product, but to acknowledge 24 that.</p>
<p style="text-align: right;">Page 75</p> <p>1 litigation, did you ever interact with 2 Compass Lexecon?</p> <p>3 A. Yes.</p> <p>4 Q. Okay. And what was the 5 nature of those interactions?</p> <p>6 A. There were either one or two 7 brief conference calls with -- with one 8 or more of the plaintiffs' attorneys and 9 one or more consultants from Compass 10 Lexecon.</p> <p>11 Q. Did they play any role in 12 the formation of your opinions or the 13 preparation of your reports?</p> <p>14 A. No.</p> <p>15 Q. What about Greylock 16 McKinnon, did you ever interact with them 17 in connection with the opioids 18 litigation?</p> <p>19 A. Yes.</p> <p>20 Q. Please describe the nature 21 of that interaction.</p> <p>22 A. It was similar to the 23 interaction with Compass Lexecon. There 24 was one -- one very brief conference call</p>	<p style="text-align: right;">Page 77</p> <p>1 And I believe that there was 2 some additional tables that could be 3 calculated, prepared, from the material 4 that's in the initial report, but we 5 hadn't produced it -- those tables in 6 that format, these highly summarized 7 tables.</p> <p>8 And as I understood it, the 9 summaries of what we produced in the 10 initial report were being used by another 11 expert and we were asked to -- to create 12 the summaries -- recreate the summaries 13 from the underlying analysis in the 14 initial report.</p> <p>15 So it all happened in a few 16 days after the initial report. We were 17 asked to make those two supplements.</p> <p>18 Q. When you submitted your 19 March 25th report, did you already intend 20 to supplement at a later time?</p> <p>21 A. No.</p> <p>22 Q. You mentioned that you were 23 contacted and told regarding the use of 24 some of the materials at depositions, who</p>

<p style="text-align: right;">Page 78</p> <p>1 contacted you? Plaintiffs' counsel?</p> <p>2 A. Oh, yes. I believe</p> <p>3 Ms. Poerschke, but I'm not 100 percent</p> <p>4 certain.</p> <p>5 Q. You mentioned that in</p> <p>6 addition to the deposition materials, you</p> <p>7 also included some highly summarized</p> <p>8 tables. When did you make those tables,</p> <p>9 you or somebody else at your firm?</p> <p>10 A. Oh, shortly before</p> <p>11 April 3rd, 2019. In the -- in the few</p> <p>12 days preceding that date.</p> <p>13 Q. So those were prepared</p> <p>14 between the March 25th report and when</p> <p>15 those highly summarized tables came out</p> <p>16 in the supplemental report on April 3rd?</p> <p>17 A. Correct.</p> <p>18 Q. And you mentioned that some</p> <p>19 of your summary tables you came to</p> <p>20 understand were being used by another</p> <p>21 expert. Which expert?</p> <p>22 A. I'm not 100 percent certain,</p> <p>23 but I think it is Professor Cutler.</p> <p>24 Q. When did you decide to</p>	<p style="text-align: right;">Page 80</p> <p>1 MR. MOUGEY: Guys, somebody</p> <p>2 is still not on mute. If anybody</p> <p>3 can double-check who's not on</p> <p>4 mute. But there's continuous</p> <p>5 noise that's coming through.</p> <p>6 THE WITNESS: I'm sorry.</p> <p>7 Could you ask that again, please.</p> <p>8 BY MS. McENROE:</p> <p>9 Q. Absolutely. So when did you</p> <p>10 do the work that's reflected in the</p> <p>11 second supplemental report?</p> <p>12 A. Well, the underlying work</p> <p>13 goes back six, eight, ten months, right,</p> <p>14 because it's based on the analysis that</p> <p>15 was already done and reported out. In</p> <p>16 the March 25th report there is some</p> <p>17 additional work and it was done in the</p> <p>18 first two weeks of April. But most of</p> <p>19 it, most of the work that is underlying</p> <p>20 that second supplement is work that was</p> <p>21 done prior to March 25th. It was just</p> <p>22 addressing a different question.</p> <p>23 We were asked to take the</p> <p>24 data and the analysis that we previously</p>
<p style="text-align: right;">Page 79</p> <p>1 submit your second supplemental report?</p> <p>2 And if it's helpful, the next blue sheet</p> <p>3 will be in front of the second</p> <p>4 supplement. And that's dated April 15,</p> <p>5 2019.</p> <p>6 MR. MOUGEY: Anybody is on</p> <p>7 the phone, if y'all can just mute</p> <p>8 it. The noise continues to come</p> <p>9 through.</p> <p>10 Thanks.</p> <p>11 BY MS. McENROE:</p> <p>12 Q. I can refine that question a</p> <p>13 little bit more.</p> <p>14 Did you decide to</p> <p>15 supplement, with your second supplemental</p> <p>16 report, after March 25th?</p> <p>17 A. Oh, yes, definitely.</p> <p>18 Q. Did you decide to supplement</p> <p>19 with your second supplemental expert</p> <p>20 report after April 3rd?</p> <p>21 A. Yes.</p> <p>22 Q. When did you do the work</p> <p>23 that's reflected in the second</p> <p>24 supplemental expert report?</p>	<p style="text-align: right;">Page 81</p> <p>1 had done and address a slightly different</p> <p>2 question with the data. But most of the</p> <p>3 sort of underlying work had been done</p> <p>4 over the prior year.</p> <p>5 Q. Prior to the period between</p> <p>6 April 3rd and April 15th when you were</p> <p>7 running the reports that ended up being</p> <p>8 reflected in the second supplemental</p> <p>9 expert report, had you been processing</p> <p>10 data regarding the manufacturers as is</p> <p>11 now reflected in the second supplemental</p> <p>12 expert report, or did that all start in</p> <p>13 that more narrow window?</p> <p>14 A. We had done some work</p> <p>15 related to the manufacturers,</p> <p>16 memorialized in the March 25th report.</p> <p>17 And so some work done related to</p> <p>18 manufacturers before March 25th.</p> <p>19 Q. But of the information</p> <p>20 that's more uniquely in the second</p> <p>21 supplemental report, is that a new set of</p> <p>22 work that you did during that more narrow</p> <p>23 period of time, the April 3rd to</p> <p>24 April 15th window?</p>

<p style="text-align: right;">Page 82</p> <p>1       A. Well, there is some 2 additional work. As I said, we had done 3 a lot of work related to the 4 manufacturers, a lot of it reported out 5 in the initial report. And I was asked 6 to provide answers to some questions that 7 that prior work would inform, but hadn't 8 been posed to me before sometime after 9 March 25th.</p> <p>10      Q. Aside from maybe having 11 forgotten to include certain materials in 12 your first supplemental report, is there 13 any reason why what's contained in your 14 first supplemental report could not have 15 been included in your March 25th report?</p> <p>16      A. I would take some of the 17 color out of your question. I didn't say 18 that I forgot to include something in the 19 initial report. But there's some 20 material there that was not included in 21 the initial report, like a discussion of 22 those demonstratives used in the 23 deposition, or the highly summarized 24 tables reflecting material that was in</p>	<p style="text-align: right;">Page 84</p> <p>1 it that day. 2           I think that it's probably 3 true for the first supplemental report, 4 that if we had thought to include those 5 summary tables or to adopt the 6 demonstratives used in the deposition, 7 that could have been done quickly and 8 included in the initial report.</p> <p>9        Q. But is there any reason why 10 you could not have done the analysis you 11 did for the second supplemental report 12 earlier, such that that result could have 13 been reflected in the March 25th report?</p> <p>14      A. I'm sorry, what do you mean 15 by any reason?</p> <p>16      Q. So for example, we can take 17 a look. In the second supplemental 18 report at Paragraph 2, you have materials 19 considered -- sorry, materials reviewed, 20 specific to the second supplemental 21 report adding some things.</p> <p>22       None of those came to exist 23 for the first time after March 25th but 24 before April 15th, correct?</p>
<p style="text-align: right;">Page 83</p> <p>1 the March report. 2           So kind of setting aside 3 some of the context that you put in your 4 question, I would say that if -- if I had 5 thought of or been instructed to include 6 the material that's in that first 7 supplemental, it could have been included 8 in the first report.</p> <p>9        Q. And same would be true of 10 the materials included in the second 11 supplemental report, correct?</p> <p>12      A. Well, it's a little 13 different. There's -- there's very 14 little additional work or thought in the 15 supplemental report. So it's material 16 that didn't require a lot of additional 17 work to produce the first supplemental. 18       The second supplemental 19 involves more substantial thought on my 20 part and work on my staff's part. 21       So I wouldn't say that as of 22 March 25th, if we had been asked to 23 produce the content that's in the second 24 supplemental report, we could have done</p>	<p style="text-align: right;">Page 85</p> <p>1       A. Correct. 2        Q. So you could have been 3 provided with this instruction and these 4 materials previously and could have 5 potentially included the opinions in your 6 second supplemental report in your 7 March 25th report, correct?</p> <p>8       A. Yes. 9        MS. McENROE: We've been 10 going for about an hour. Take a 11 quick break? 12       MR. MOUGEY: That sounds 13 good. What -- what's your 14 definition of quick? 15       MS. McENROE: Let's go off 16 the record. 17       THE VIDEOGRAPHER: Off the 18 record at 11:18 a.m. 19       (Short break.) 20       THE VIDEOGRAPHER: We are 21 back on the record at 11:31 a.m. 22 BY MS. McENROE: 23       Q. I'd like to direct your 24 attention in your March 25th report to</p>

<p style="text-align: right;">Page 86</p> <p>1 Page 3, which is a continuation of 2 Paragraph 9, which has a list of 3 materials reviewed. Let me know when 4 you're there.</p> <p>5 A. Yes.</p> <p>6 Q. Great. And take a look at 7 the next page, it's a continuation of 8 that list.</p> <p>9 And Item I you have listed 10 as Masters Pharmaceutical, Inc., versus 11 Drug Enforcement Administration; is that 12 correct?</p> <p>13 A. Yes.</p> <p>14 Q. When did you first read 15 Masters?</p> <p>16 A. Last spring or summer. 17 Approximately a year ago.</p> <p>18 Q. Do you rely on it in any way 19 in issuing your expert opinions?</p> <p>20 A. No, I don't think so.</p> <p>21 Q. You are not a lawyer, 22 correct?</p> <p>23 A. Correct.</p> <p>24 Q. You don't apply caselaw in</p>	<p style="text-align: right;">Page 88</p> <p>1 regulations in connection with forming 2 the opinions in your expert reports?</p> <p>3 A. Not directly. There may be, 4 at a second remove, an impact of a -- a 5 regulation on my thinking. But -- the 6 data, but not -- not directly.</p> <p>7 Q. What do you mean by second 8 remove impact?</p> <p>9 A. Well, at a high level what I 10 think I did was to determine whether the 11 transactions that the defendants reported 12 to the DEA in realtime match the 13 transactions that they report to the 14 court in this case.</p> <p>15 And there's a couple of 16 different ways of thinking about that, 17 framing that exercise.</p> <p>18 Q. Sure.</p> <p>19 A. But I understand that the 20 defendants are required by regulation or 21 law to report those transactions timely 22 and accurately to the DEA through ARCOS. 23 And so one interpretation of what I did 24 was to -- to take the transactions that</p>
<p style="text-align: right;">Page 87</p> <p>1 your analysis in your expert reports?</p> <p>2 A. I don't. If I do, it's 3 inadvertent.</p> <p>4 Q. Okay. You also don't 5 have -- you do not have listed here the 6 Controlled Substances Act; is that 7 correct?</p> <p>8 A. Correct.</p> <p>9 Q. Did you review that in whole 10 or in part in connection with the opioids 11 litigation work you've done?</p> <p>12 A. If I did, I don't recall.</p> <p>13 Q. Did you rely on it in any 14 way with respect to any of the opinions 15 you've put forth?</p> <p>16 A. No.</p> <p>17 Q. So you didn't review 18 Title 21, Section 1301.74(b) from the 19 Code of Federal Regulations, correct?</p> <p>20 A. Not that I'm aware of. If 21 you put it in front of me, I may 22 recognize the text. But I don't -- I 23 don't recall it by that citation.</p> <p>24 Q. Well, did you rely on any</p>	<p style="text-align: right;">Page 89</p> <p>1 the defendants produced in this case, and 2 determine whether the defendants produced 3 their actual transactions in these 14 4 opioids. And a way to do that is to say, 5 well, in addition to whatever 6 responsibility the defendants have to the 7 court in this case, they had separate 8 from that in realtime, a responsibility 9 to report the transactions to ARCOS. And 10 so I then compare those two datasets.</p> <p>11 So when I say sort of at a 12 second remove, regulation may impact my 13 opinion, it's at a -- a tenuous 14 connection. What I'm really doing is 15 just comparing two datasets. But my 16 thinking about that is probably informed 17 by an understanding that the defendants 18 both had a responsibility to the court, 19 and then, through regulation, had a 20 responsibility to accurately and timely 21 report their transactions.</p> <p>22 Q. When you say responsibility 23 of the court, you are talking about in 24 discovery in this litigation?</p>

<p>1        A. Yes.</p> <p>2        Q. And you made mention that</p> <p>3 defendants are required by regulation to</p> <p>4 report their data timely and accurately.</p> <p>5 Are you referring to ARCOS when you made</p> <p>6 that statement?</p> <p>7        A. Yes.</p> <p>8        Q. Are you making any opinions</p> <p>9 in any of your expert reports whether any</p> <p>10 defendant did or did not comply with</p> <p>11 their reporting obligations vis-a-vis</p> <p>12 ARCOS?</p> <p>13       A. I don't think so. It's</p> <p>14 certainly not an opinion that I</p> <p>15 expressed. We see some gaps in the ARCOS</p> <p>16 data. But I don't know if that result --</p> <p>17 if that resulted from a defendant not --</p> <p>18 not timely reporting transactions or not.</p> <p>19 That's a slightly different question.</p> <p>20       Q. When you interacted with</p> <p>21 current or former DEA personnel with</p> <p>22 respect to the ARCOS data, did any of</p> <p>23 them tell you that any of the defendants</p> <p>24 did not meet their obligations with</p>	<p>Page 90</p> <p>1 regarding suspicious order monitoring.</p> <p>2 Did you review any in connection with</p> <p>3 forming any of your opinions?</p> <p>4       A. Not that I recall.</p> <p>5       Q. Okay.</p> <p>6       A. I'm sorry, the answer would</p> <p>7 definitely be no, because if I saw</p> <p>8 something like that, it didn't in any way</p> <p>9 inform any of my opinions. My opinions</p> <p>10 are really about the data. Not about --</p> <p>11 about some subject matter conduct by any</p> <p>12 of the parties.</p> <p>13       Q. Aside from any documents</p> <p>14 cited in your expert reports, did you</p> <p>15 review any documents produced by</p> <p>16 defendants regarding their own suspicious</p> <p>17 order monitoring programs?</p> <p>18       A. I don't think I did</p> <p>19 personally, but my staff did see some</p> <p>20 suspicious order monitoring reports. I</p> <p>21 know that we received some. They didn't</p> <p>22 inform any of my opinions.</p> <p>23       Q. Okay. What did they</p> <p>24 receive?</p>
<p>1 respect to reporting ARCOS data?</p> <p>2       A. No.</p> <p>3       Q. Are you making any opinions</p> <p>4 in any of your expert reports about</p> <p>5 defendants' failure to comply with their</p> <p>6 discovery obligations in this litigation?</p> <p>7       A. Well, it's not an opinion.</p> <p>8 I think some of our observations have</p> <p>9 informed further discovery production.</p> <p>10 And I expect may continue to.</p> <p>11       AmerisourceBergen provided</p> <p>12 data yesterday in discovery that we</p> <p>13 identified in the March 25th report</p> <p>14 hadn't been produced before. So I</p> <p>15 don't -- that's not an opinion really,</p> <p>16 but it -- it is a comment on the</p> <p>17 discovery, at least the production that</p> <p>18 we've received. And I expect there may</p> <p>19 be more production. But it's not -- it's</p> <p>20 not opinion.</p> <p>21       Q. Okay. You didn't list in</p> <p>22 your materials considered any, what we</p> <p>23 call "dear registrant" letters which are</p> <p>24 letters from the DEA to registrants</p>	<p>Page 91</p> <p>1       A. I don't know.</p> <p>2       Q. Do you know regarding which</p> <p>3 defendants?</p> <p>4       A. No. I'm sorry. I might</p> <p>5 have answered a little too quickly to the</p> <p>6 prior question.</p> <p>7       I think what my recollection</p> <p>8 is, that I was told, that we received</p> <p>9 kind of a hodge-podge of e-mails or</p> <p>10 memos, that the reporting wasn't</p> <p>11 particularly systematic or organized, to</p> <p>12 the best of my recollection.</p> <p>13       As I said, it didn't</p> <p>14 inform -- wasn't used in any way in my</p> <p>15 analysis and didn't inform in any way my</p> <p>16 opinions. But that's my recollection of</p> <p>17 what we received.</p> <p>18       Q. And are you referring to</p> <p>19 actual suspicious order reports or are</p> <p>20 you referring to suspicious order</p> <p>21 monitoring programming?</p> <p>22       I just want to make sure we</p> <p>23 are talking about the same thing.</p> <p>24       A. I've told you everything I</p>

<p style="text-align: right;">Page 94</p> <p>1 know already on the subject. I can't 2 qualify it any more than that. 3 Q. Okay. Did you consider any 4 documents relating to investigations that 5 defendants may have done into potentially 6 suspicious orders? 7 A. No. 8 Q. Did you consider any 9 documents regarding audits of the 10 suspicious order monitoring programs by 11 DEA, Board of Pharmacy, or otherwise? 12 A. No. 13 Q. Did you review any 14 communications between defendants, any of 15 them, and the DEA? 16 A. Only again at one step 17 removed. The ARCOS data, 10 or 12 of the 18 34 fields we received are transmitted by 19 the defendants to the DEA. And so the 20 source material that we received 21 ultimately came in large part from the 22 defendants, but by communication, if you 23 mean letters or e-mails or analysis, no, 24 I did not.</p>	<p style="text-align: right;">Page 96</p> <p>1 that we would source ourselves during our 2 work, researching the data that we 3 receive. So just take for an example, D, 4 E, F, G, H, those are all examples, as we 5 were -- and B and C, these are all items 6 that as we were developing the data last 7 summer, we sourced without asking for it 8 from the plaintiffs' counsel or the 9 plaintiffs' counsel providing it to us 10 without us asking for it, which were the 11 two possibilities your question covered. 12 Q. Thank you. So was there 13 anything that you asked for in forming 14 your opinions that plaintiffs' counsel 15 did not give you? 16 A. No, not that I can think of. 17 Q. Let's take a quick look on 18 Page 4 of your initial report. Paragraph 19 13, under heading "Summary of Opinions." 20 Do you see where I am? 21 A. Yes. 22 Q. Paragraph 13 says, "Based 23 upon my comparison of the ARCOS data 24 produced by the DEA and the public ARCOS</p>
<p style="text-align: right;">Page 95</p> <p>1 Q. Since issuing your original 2 report or either of your two supplements, 3 besides defendants having supplemented 4 their transactional data, have you 5 reviewed anything else regarding the 6 opioids litigation, anything else 7 produced in discovery? 8 A. I don't think so. 9 Q. The materials reflected in 10 your materials reviewed section of your 11 reports, are those materials that you 12 asked for or are they materials that were 13 provided to you without you asking for 14 them? 15 A. I'm sorry. I don't think I 16 can answer the question the way that 17 you've asked it. I can rephrase it for 18 you if you like or you could -- 19 Q. Sure. As long as we do it 20 relatively quickly. 21 A. Well, it's neither, right. 22 You asked me was it provided to me 23 without me asking for it or did I ask for 24 it. So most of those items are items</p>	<p style="text-align: right;">Page 97</p> <p>1 retail drug summary reports, I conclude 2 that, after correcting a relatively small 3 number of records, the ARCOS data 4 produced by the DEA is reliable." 5 Did I read that correctly? 6 A. Yes. 7 Q. And then if we go ahead to 8 Paragraph 17, still under "Summary of 9 Opinions," the first sentence there says, 10 "I conclude from my review of the ARCOS 11 data, the retail drug summary reports, 12 and transaction data produced in 13 discovery by the defendants, that the 14 ARCOS data is reliable." 15 Did I read that accurately? 16 A. Yes. 17 Q. And then that paragraph 18 continues, correct? 19 A. Yes. 20 Q. So is it fair to say that 21 you are of the opinion that the ARCOS 22 data is generally reliable? 23 THE WITNESS: Bless you. 24 Yes, with the qualification</p>

Page 98	Page 100
<p>1 that I make throughout the report,    2 that is my opinion.    3 BY MS. McENROE:    4 Q. An in -- at, like, a    5 30,000-foot level, the sort of first half    6 of your report is largely taking    7 transactional data that defendants have    8 produced in this litigation, comparing it    9 to the ARCOS data to help you form that    10 opinion that ARCOS data is reliable?    11 I'm not trying to make this    12 one a trick question. If you want to    13 describe it a different way, go ahead.    14 A. I would -- I would just add    15 to that a comparison with the retail drug    16 summary reports, which is what we looked    17 at on Paragraph 13. But if you add    18 comparing the ARCOS data that we received    19 from the DEA, the retail drug summary    20 reports, and the defendant transaction    21 data, comparing those three views of what    22 should be the same underlying data, we    23 think that at least those three views are    24 consistent, is how I would describe it.</p>	<p>1 separately?    2 A. Well, there's some    3 technology there that I may be challenged    4 to describe. So the easiest way for me    5 to think about the data we received is    6 the ARCOS data was received on DVDs or    7 hard drives.    8 Q. Yep.    9 A. And then some additional    10 production was received through some    11 internet-based technology shared between    12 the plaintiffs' counsel and my office. I    13 wasn't directly involved in the    14 transmission, so there's some technical    15 details there that I'm not familiar with.    16 Q. Did your office have access    17 to the defendants' overall production, so    18 more than what was produced for    19 transactional data?    20 A. Yes.    21 Q. Did your office go looking    22 at things more than the transactional    23 data?    24 A. Yes.</p>
<p>1 Q. And to maybe put a finer    2 point on it, that is the analysis    3 conducted in Section 5, I believe, of    4 your report; is that correct? Five and    5 six?    6 A. Five and six. Yes.    7 Q. Great. And so the purposes    8 of Sections 5 and 6 are both to reach    9 that conclusion that we were just    10 discussing; is that correct?    11 A. Well, there's a little bit    12 more to it than that. But as you said,    13 at a high level, I think that's fair.    14 Q. Okay. So you got    15 defendants' transactional data, and you    16 got different data from each of the    17 defendants' production. Is that fair to    18 say?    19 A. Yes.    20 Q. And how did you get access    21 to defendants' productions? Did you have    22 access to the production database of the    23 documents produced directly from    24 defendants or was it provided to you</p>	<p>1 Q. What did they go looking at?    2 A. Well, we -- we talked a    3 little bit earlier about the suspicious    4 order reports, what I'm calling generally    5 the suspicious order reports. That would    6 be one example.    7 I can't think of other    8 examples as I'm sitting here. But I'm    9 sure there is other material besides the    10 individual defendant transaction data and    11 the suspicious order reports, what I'm    12 referring to generally and somewhat    13 vaguely, because it's just my    14 understanding of how to describe some set    15 of e-mails or reports on suspicious order    16 monitoring.    17 Chargeback data is another    18 example. We don't use the chargeback    19 data very much. But that's another    20 example of data that was produced by the    21 defendants, as I understand it.    22 What additional categories    23 of documents or data my staff might have    24 looked at, I don't -- I don't know. I</p>

Page 102	Page 104
<p>1 have described what I can recall.</p> <p>2 Q. And did you look at any of</p> <p>3 the suspicious order reports documents,</p> <p>4 as you've described them?</p> <p>5 A. I don't recall. If I did,</p> <p>6 it was just on a screen. It wasn't</p> <p>7 something that was printed off or a</p> <p>8 binder or, you know, a folder. It was</p> <p>9 seeing what looked like an e-mail or a</p> <p>10 memo or something like that, looking over</p> <p>11 the shoulder of one of my staff and being</p> <p>12 told that's what the suspicious order</p> <p>13 files look like.</p> <p>14 Q. Does that inform any of your</p> <p>15 opinions in your report?</p> <p>16 A. No.</p> <p>17 Q. Take a look at Page 29 of</p> <p>18 your first report, Paragraph 29</p> <p>19 coincidentally. I'm sorry. Footnote 29</p> <p>20 is what I meant.</p> <p>21 A. Yes.</p> <p>22 Q. So the footnote says, "The</p> <p>23 13 defendants are ANDA,</p> <p>24 AmerisourceBergen, Cardinal Health, CVS,</p>	<p>1 A. We notified the plaintiffs</p> <p>2 of the deficiencies in the data just as</p> <p>3 we did for some of the other defendants.</p> <p>4 Q. Okay. And plaintiffs did</p> <p>5 not come back to you specifically with</p> <p>6 respect to Rite Aid with clarification</p> <p>7 regarding the location of the Rite Aid</p> <p>8 data in the production database?</p> <p>9 A. Not that I recall.</p> <p>10 Q. Footnote 30 says, "For</p> <p>11 example, Rite Aid only produced</p> <p>12 transactions for 2007 and only for</p> <p>13 hydrocodone, 9193."</p> <p>14 Then it keeps going.</p> <p>15 A. Yes.</p> <p>16 Q. In a number of your charts</p> <p>17 you put N/A for certain Rite Aid entries,</p> <p>18 because presumably you didn't have that</p> <p>19 data. Do you recall that?</p> <p>20 A. No.</p> <p>21 Q. So for example, see if I</p> <p>22 can -- take a look at Page 63. You'll</p> <p>23 see Rite Aid is third from the bottom</p> <p>24 above the total?</p>
<p style="text-align: center;">Page 103</p> <p>1 Discount Drug Mart, HBC, Henry Schein, HD</p> <p>2 Smith, McKesson, Prescription Supply,</p> <p>3 Rite Aid, Walgreens and Walmart.</p> <p>4 "I do not discuss the data</p> <p>5 produced by Rite Aid or Henry Schein</p> <p>6 because the produced data was</p> <p>7 insufficient to compare with the ARCOS</p> <p>8 data.</p> <p>9 "Rite Aid did not produce</p> <p>10 the buyers' DEA numbers, and the data</p> <p>11 produced by Rite Aid does not identify</p> <p>12 which counties are included in the data.</p> <p>13 "Henry Schein did not</p> <p>14 include the buyers DEA number or NDCs."</p> <p>15 And then you go on to say,</p> <p>16 "Appendix 7 lists the data fields</p> <p>17 provided by each defendant. I have</p> <p>18 standardized the names of the field to</p> <p>19 simplify the presentation."</p> <p>20 Did I read that correctly?</p> <p>21 A. Yes.</p> <p>22 Q. What did you do to seek out,</p> <p>23 if anything, the data produced by Rite</p> <p>24 Aid and Henry Schein?</p>	<p style="text-align: center;">Page 105</p> <p>1 A. Yes.</p> <p>2 Q. And you have N/A for</p> <p>3 oxycodone, morphine, hydrocodone,</p> <p>4 oxymorphone.</p> <p>5 Do you see that?</p> <p>6 A. Yes.</p> <p>7 Q. For Rite Aid?</p> <p>8 Did you understand or have</p> <p>9 any understanding that Rite Aid did not</p> <p>10 distribute any of those specific drugs?</p> <p>11 A. I don't know one way or</p> <p>12 the -- the other, but if that's the case,</p> <p>13 then N/A would cover it.</p> <p>14 Q. Would it properly be zero as</p> <p>15 opposed to N/A, if you knew that?</p> <p>16 A. I don't know. I'd have to</p> <p>17 think about that.</p> <p>18 Q. Let's take a look at your</p> <p>19 resumé. Hold on one second.</p> <p>20 (Document marked for</p> <p>21 identification as Exhibit</p> <p>22 McCann-4.)</p> <p>23 BY MS. McENROE:</p> <p>24 Q. I'm going to mark this as</p>

<p style="text-align: right;">Page 106</p> <p>1 Exhibit 4, which I believe is Appendix 1 2 to your March 25th report. 3 A. Thank you. 4 Q. Great. Thank you. 5 And I'll represent to you 6 that this is what you had included as 7 Appendix 1. Does this look familiar? 8 A. Yes. 9 Q. Is there anything you'd like 10 to correct in Exhibit 4, or is it all 11 right if we consider this to be your 12 qualifications and experiences? 13 A. There -- there, of course, 14 would be a couple of additional entries. 15 The two -- if we were preparing this 16 report -- this resumé today rather than 17 on March 25th, it would be the two 18 supplemental reports, and then I gave a 19 deposition last week or the week before 20 in the case that's third down on -- on 21 Page 97, the SEC V RPM. 22 Other than that, I -- I'm 23 not aware of any changes that I would 24 make to it.</p>	<p style="text-align: right;">Page 108</p> <p>1 A. Yes. 2 Q. Fair to say that you do not 3 have professional experience with 4 suspicious order monitoring? 5 A. Yes. 6 Q. You have not been involved 7 in designing a suspicious order 8 monitoring program, correct? 9 A. Correct. 10 Q. You have not reviewed 11 guidance from the DEA regarding 12 suspicious order monitoring, correct? 13 A. Correct. 14 Q. You are not experienced with 15 supply chain; is that correct? 16 So what I mean by that is 17 the moving of products along a supply 18 chain, like in this case, 19 pharmaceuticals, are you an expert in 20 that? 21 A. Yeah, I was going to say, 22 I'm -- I'm familiar with the concept. 23 And a little bit familiar with operations 24 research. But I would not call myself an</p>
<p style="text-align: right;">Page 107</p> <p>1 Q. So you have a Bachelor's 2 degree, a Master's degree, and a Ph.D.; 3 is that correct? 4 A. Correct. 5 Q. And your Ph.D. is in 6 economics, correct? 7 A. Correct. 8 Q. Okay. You are not a medical 9 doctor, correct? 10 A. Correct. 11 Q. You did not attend medical 12 school? 13 A. Correct. 14 Q. You are not a physician's 15 assistant? 16 A. Correct. 17 Q. You are not licensed to 18 write prescriptions? 19 A. Correct. 20 Q. You are not a pharmacist? 21 A. Correct. 22 Q. Fair to say you're not an 23 expert in healthcare or the healthcare 24 industry?</p>	<p style="text-align: right;">Page 109</p> <p>1 expert in supply chain management. 2 Q. Would you consider yourself 3 an expert in suspicious order monitoring? 4 A. No. 5 Q. Would you consider yourself 6 an expert in issues from -- relating to 7 the Drug Enforcement Agency? 8 MR. MOUGEY: Objection. 9 THE WITNESS: That's a 10 little too broad a question. 11 There may be some aspects that I 12 would be an expert in, for 13 instance, the -- the aspects that 14 I actually address in my expert 15 report, which is the assessment of 16 the data. 17 But if you mean something 18 more specific to the DEA as 19 opposed to the data that the DEA 20 produced to me, then I would 21 say -- I would agree with you, 22 what -- whatever the implication 23 was of your question. 24 BY MS. McENROE:</p>

Page 110	Page 112
<p>1 Q. Sure. And so I can say it  2 another way. You've never worked at the  3 DEA, correct?</p> <p>4 A. Correct.</p> <p>5 Q. You've never worked at the  6 FDA?</p> <p>7 A. Correct.</p> <p>8 Q. You've never worked at the  9 CDC?</p> <p>10 A. Correct.</p> <p>11 Q. Do you have any  12 healthcare-related experience, aside from  13 being potentially a consumer of  14 healthcare, that's not reflected in your  15 Appendix 1 to your expert report?</p> <p>16 A. No.</p> <p>17 Q. Is it fair to say that the  18 vast majority of your professional  19 experience relates to securities-related  20 issues?</p> <p>21 Or I can say that a  22 different way if you'd prefer.</p> <p>23 And I think I've seen you  24 having written this a number of times.</p>	<p>1 identification as Exhibit  2 McCann-5.)</p> <p>3 BY MS. McENROE:</p> <p>4 Q. I'm going to hand you what  5 I'm marking as Exhibit 5, which is  6 Appendix 2 to your March 25th report.</p> <p>7 A. Thank you.</p> <p>8 Q. Sure. And let's take a look  9 together at Paragraph 191. So this is  10 just an example.</p> <p>11 And I'm going to be  12 starting, a couple lines down, there's a  13 sentence towards the end of the line that  14 starts "I reviewed the ingredient base  15 weights."</p> <p>16 Do you see that?</p> <p>17 A. Yes.</p> <p>18 Q. Okay. And it says, "I  19 reviewed the ingredient base weights in  20 the NDC dictionary for all NDCs with  21 dosage units in the ARCO data and  22 flagged ingredient base weights as  23 potentially incorrect, if the weight of  24 the drug per dosage form, e.g., capsule,</p>
<p>1 That the majority of your consulting work  2 since you left the SEC has primarily  3 involved the analysis of investments.</p> <p>4 Is that a true statement?</p> <p>5 A. Yes.</p> <p>6 Q. This case does not involve  7 the analysis of investments, correct?</p> <p>8 A. Correct.</p> <p>9 Q. Do you know what the word  10 "anhydrous" means?</p> <p>11 A. Someone told me and I forgot  12 right now. It's not something that --  13 that I recall.</p> <p>14 Q. In your report, you have  15 certain statements with regards to  16 certain drug weights or the makeup of  17 certain pharmaceuticals. Do you have  18 personal knowledge on which you can be  19 making those statements?</p> <p>20 A. I'm sorry, could you give me  21 an example?</p> <p>22 Q. Sure. So let's take a  23 look -- let's do Appendix 2.</p> <p>24 (Document marked for</p>	<p>1 tablet, patch, was significantly  2 different than the other drug products  3 with the same base drug and dosage  4 strength."</p> <p>5 Do you see that?</p> <p>6 A. I do.</p> <p>7 Q. What methodology did you use  8 to make those determinations?</p> <p>9 A. Well, I compared NDCs with  10 the same active ingredient, the same drug  11 code, and noted that for some NDCs, the  12 ingredient base weights were orders of  13 magnitude different than other NDCs for  14 the same drug code.</p> <p>15 So to give you a simple  16 example, if I may. There might be an NDC  17 for a package of 10 pills and an NDC code  18 for a package of 30 identical pills. And  19 the -- the base weights for those two  20 packages should be in that same  21 proportion, three to one. And there are  22 just a handful of examples, maybe a dozen  23 or two dozen examples, where -- where  24 there appears to be an error.</p>

<p style="text-align: right;">Page 114</p> <p>1        We actually see some of 2 those errors being corrected over time in 3 the NDC dictionary. Because if you 4 access the NDC dictionary today it will 5 be slightly different than the NDC 6 dictionary that you accessed a year ago. 7        And so we give you an 8 example in the next -- I give you an 9 example in the next paragraph of exactly 10 what I'm describing. 11      Q. Did you do anything other 12 than consult with the dictionary to check 13 that that methodology was appropriate or 14 correct? 15      A. Well, yes, you can see in 16 Footnote 62 I'm referencing an appendix 17 to the ARCOS handbook that is sort of an 18 independent check on the calculation that 19 I did. So we've -- we first, when we got 20 the ARCOS data, and checked some of the 21 calculated base weights in the ARCOS data 22 against the ingredient base weight in the 23 NDC dictionary, we found some patterns 24 like the pattern I just described to you</p>	<p style="text-align: right;">Page 116</p> <p>1        Did you exclude any other 2 entries aside from that one obvious 3 error? 4        A. At some points in our 5 report, certainly yes, as I described in 6 the early part of the report when I'm 7 summarizing the data as we received it 8 from ARCOS. I forget the tables exactly, 9 but we could look at them if you like. 10      As we go from Table 3 to 4, or something 11 like that, I condensed some of the ARCOS 12 data, for example, excluding reverse 13 distributors from an intermediate 14 discussion of the data because there are 15 examples where -- where there's a 16 manufacturer shipment to a reverse 17 distributor of -- I'll make the number 18 up -- but 1,000 units. And the same NDC 19 code with the same quantity but a 20 different unit code is shipped from the 21 reverse distributor to an analytical lab. 22      The reverse distributor and 23 the manufacturer in my example are both 24 reporting that first transaction, but the</p>
<p style="text-align: right;">Page 115</p> <p>1        across those two NDC codes. 2        And from that and from some 3 additional analysis, we see a, depending 4 on the drug code, a factor or a ratio 5 between the stated strength and the 6 ingredient base weight. 7        And then later we -- we 8 verified those with the ratios described 9 in Appendix 3 of the ARCOS handbook. 10      Q. Can you turn to Paragraph 11 204 in that Exhibit 5. 12      A. Yes. 13      Q. In the section headed 14 "Transactions with Obvious Errors in 15 Quantity." 16      A. Yes. 17      Q. It says, "I also exclude 18 transactions with obvious errors in 19 quantity. For example, I exclude a 20 single sale transaction of 21 hydrocodone/APAP tablets from a 22 distributor to a practitioner in the 23 Northern Mariana Island that has 24 calculated base rate of 34 metric tons."</p>	<p style="text-align: right;">Page 117</p> <p>1        reverse distributor is putting in the 2 wrong unit code and reporting a base 3 weight or implying a base weight -- 4        Q. Sir, I'm sorry to interrupt 5 you. But we're a little short on time, 6 so I just want to make sure. 7        It looks, in this Appendix 8 2, that you've differentiated 9 transactions involving reverse 10 distributors, analytical labs, importers, 11 exporters, or researchers from 12 transactions with obvious errors in 13 quantities. In this section, you walk 14 through methodologically -- sorry, lost 15 the word -- of how you got through this 16 data. 17        And I'm asking specifically 18 with respect to transactions with obvious 19 errors in quantity, whether you know if 20 you've excluded any others on that 21 specific basis. 22      A. I'm sorry. I wasn't at a 23 period. If I could just have a few more 24 words to complete my sentence.</p>

Page 118	Page 120
<p>1 Q. No, I'm sorry. I'm sorry.</p> <p>2 Special Master Cohen has ruled, at least</p> <p>3 at the deposition of Dr. Eagleman, that</p> <p>4 we're entitled to cut you off. And I can</p> <p>5 say for the record, the record can</p> <p>6 reflect, that your answer was not</p> <p>7 complete.</p> <p>8 MR. MOUGHEY: Special Master</p> <p>9 Cohen -- that you can cut the</p> <p>10 witness off in the middle of a --</p> <p>11 MS. McENROE: Correct, and</p> <p>12 we can just consider it --</p> <p>13 MR. MOUGHEY: -- on a</p> <p>14 response to a question.</p> <p>15 MS. McENROE: Yes. Yes. We</p> <p>16 are very limited by time.</p> <p>17 MR. MOUGHEY: If you can show</p> <p>18 me the --</p> <p>19 MS. McENROE: I certainly</p> <p>20 can get you --</p> <p>21 MR. MOUGHEY: That would be</p> <p>22 great. So we can cut each other</p> <p>23 off during the course of the</p> <p>24 depositions --</p>	<p>1 A. I believe there are others.</p> <p>2 But they are de minimus. I don't recall</p> <p>3 another example as I sit here, besides</p> <p>4 the one that I give you there.</p> <p>5 Q. Okay. Let's turn to</p> <p>6 Paragraph 121 on Page 50 of your</p> <p>7 March 25th report. So that will be in</p> <p>8 the bound document there.</p> <p>9 So on Page 50, that last</p> <p>10 line in Paragraph 21 (sic) there's a</p> <p>11 sentence that starts with</p> <p>12 "buprenorphine."</p> <p>13 Do you see that?</p> <p>14 A. Yes.</p> <p>15 Q. Okay. "Buprenorphine and</p> <p>16 fentanyl have a large MME relative to</p> <p>17 their dosage units because both are</p> <p>18 prescribed as skin patches, which</p> <p>19 dispense the drug for up to one week."</p> <p>20 Do you see that?</p> <p>21 A. Yes.</p> <p>22 Q. And you have no citation</p> <p>23 there, right?</p> <p>24 A. Correct.</p>
Page 119	Page 121
<p>1 MS. McENROE: We can.</p> <p>2 MR. MOUGHEY: And we can</p> <p>3 give -- the witness can't give an</p> <p>4 opportunity to --</p> <p>5 MS. McENROE: At my peril.</p> <p>6 MR. MOUGHEY: -- to answer</p> <p>7 the question?</p> <p>8 MS. McENROE: At my peril,</p> <p>9 that his answer is not complete.</p> <p>10 I'm just trying to make sure -- he</p> <p>11 wasn't answering the correct</p> <p>12 question because he was answering</p> <p>13 a different question. So I'm</p> <p>14 trying to make sure that we</p> <p>15 preserve our time.</p> <p>16 BY MS. McENROE:</p> <p>17 Q. So with respect specifically</p> <p>18 to Subsection F here, transactions with</p> <p>19 obvious errors in quantity. Taking into</p> <p>20 account that you have your other sections</p> <p>21 talking about other corrections you've</p> <p>22 made to the data, can you recall any</p> <p>23 other specific obvious errors with</p> <p>24 quantity that you corrected?</p>	<p>1 Q. Do you know if there are</p> <p>2 other formulations of buprenorphine or</p> <p>3 fentanyl?</p> <p>4 A. Yes.</p> <p>5 Q. And how do you know that?</p> <p>6 A. From the NDC dictionary.</p> <p>7 Q. Do you know about drug or</p> <p>8 pharmaceutical formulations other than</p> <p>9 from the NDC dictionary or the ARCOS</p> <p>10 registrant handbook? Do you have other</p> <p>11 professional or educational experience on</p> <p>12 which to base the statements that you put</p> <p>13 in your report along those lines?</p> <p>14 A. No.</p> <p>15 Q. What is -- do you know what</p> <p>16 it means for a drug to be Schedule I,</p> <p>17 Schedule II, III, IV, V?</p> <p>18 A. Generally, but not part of</p> <p>19 my -- as part of my expert experience or</p> <p>20 opinion.</p> <p>21 Q. Are you aware that the only</p> <p>22 drugs at issue in this litigation are a</p> <p>23 particular set of opioid pain medications</p> <p>24 that are or ever have been Schedule II?</p>

Page 122	Page 124
<p>1        A. Yes.</p> <p>2        Q. From my understanding, you</p> <p>3 include codeine in your analysis; is that</p> <p>4 correct?</p> <p>5        A. Yes.</p> <p>6        Q. Including certain</p> <p>7 formulations with -- involving codeine</p> <p>8 that are and have always been a Schedule</p> <p>9 III; is that correct?</p> <p>10       A. I'm not sure. That, I</p> <p>11 think, goes beyond my expertise. What</p> <p>12 I've done is I've analyzed the data that</p> <p>13 the DEA produced and that the defendants</p> <p>14 produced.</p> <p>15       Q. Right. But you're not using</p> <p>16 all of the data that the DEA and the</p> <p>17 defendants produced in your analysis,</p> <p>18 right? You're picking certain of the</p> <p>19 data for your analysis? So, for example,</p> <p>20 you exclude certain treatment-related</p> <p>21 medications from some of your analysis,</p> <p>22 right?</p> <p>23       A. I think that's a different</p> <p>24 issue. But yeah, some of the tables do</p>	<p>1        (Whereupon, a discussion was</p> <p>2 held off the record.)</p> <p>3        - - -</p> <p>4        (Lunch break.)</p> <p>5        - - -</p> <p>6        A F T E R N O O N   S E S S I O N</p> <p>7        - - -</p> <p>8        THE VIDEOGRAPHER: We are</p> <p>9 back on the record at 1:03 p.m.</p> <p>10       - - -</p> <p>11       EXAMINATION (Cont'd.)</p> <p>12       - - -</p> <p>13       BY MS. McENROE:</p> <p>14       Q. Hi, Dr. McCann, thank you</p> <p>15 for joining us again.</p> <p>16       I'd like to direct your</p> <p>17 attention, in your March 25th report,</p> <p>18 which I think is Exhibit 3 if I'm</p> <p>19 recounting correctly.</p> <p>20       A. Yes.</p> <p>21       Q. Great. Could you please</p> <p>22 turn to Page 6 which is Paragraph 21.</p> <p>23       A. Yes.</p> <p>24       Q. And it says in Section 9, if</p>
<p>1        not include two treatment drugs.</p> <p>2        Q. Did you intend to include</p> <p>3 Schedule III drugs that are not within</p> <p>4 the scope of this litigation in your</p> <p>5 analysis?</p> <p>6        A. I intended to analyze all of</p> <p>7 the data that the DEA produced and that</p> <p>8 the individual defendants produced</p> <p>9 regardless of what schedule they were on.</p> <p>10 It's just reporting of the data for the</p> <p>11 benefit of the court.</p> <p>12       Q. So if the data was produced</p> <p>13 by the DEA but does not concern a drug</p> <p>14 that's at issue in this litigation, it's</p> <p>15 possible that could be accounted for in</p> <p>16 your analysis?</p> <p>17       A. I would say it a little bit</p> <p>18 differently. If it's a drug that was</p> <p>19 produced by the DEA and by the individual</p> <p>20 defendants, it's in our analysis.</p> <p>21       MS. McENROE: Can we go off</p> <p>22 the record for a second.</p> <p>23       THE VIDEOGRAPHER: Off the</p> <p>24 record at 12:13 p.m.</p>	<p>1        I'm getting my Roman numerals correct; is</p> <p>2 that right?</p> <p>3        A. Yes.</p> <p>4        Q. Okay. "In Section 9, I</p> <p>5 describe a nonexhaustive set of</p> <p>6 algorithms that can be systematically</p> <p>7 applied to the ARCOS data and present a</p> <p>8 check on the various estimates presented.</p> <p>9 In Section 10, I provide certain</p> <p>10 estimates regarding the total aggregate</p> <p>11 shipments of opioids into Ohio from 1997</p> <p>12 to 2018. In Section 11, I describe</p> <p>13 certain charts and tables that are</p> <p>14 attached to this report. In Section 12,</p> <p>15 I give my conclusions."</p> <p>16       Did I read that correctly?</p> <p>17       A. Yes.</p> <p>18       Q. Okay. And you say in that</p> <p>19 first sentence that you're describing a</p> <p>20 nonexhaustive set of algorithms that can</p> <p>21 be systematically applied to the ARCOS</p> <p>22 data.</p> <p>23       Are you planning to apply</p> <p>24 any other algorithms not articulated in</p>
Page 123	Page 125

Page 126	Page 128
<p>1 your March 25th report or either of your    2 supplements to the ARCos data in this    3 litigation?</p> <p>4 A. Not as I sit here.</p> <p>5 Q. And when you say that, you    6 say because you might do some later, but    7 you haven't been asked to yet?</p> <p>8 A. Right. It's not something I    9 intend to do or that I am contemplating    10 as I sit here. But there might be    11 additional facts developed or there might    12 be some instruction from the court or for    13 some other reason, another alternative    14 may come to mind that I would develop and    15 implement. But I -- I don't have    16 anything in mind, as I sit here.</p> <p>17 Q. So even though you say that    18 in Section 9 you are describing a    19 nonexhaustive set of algorithms, you're    20 not meaning that to say that you have not    21 listed all the algorithms that are    22 forming your opinions in this report in    23 this report?</p> <p>24 A. Correct.</p>	<p>1 computer, a sort of old school computer,    2 that -- that you are taking in the data,    3 processing it and putting out output in    4 your opinions?</p> <p>5 A. Yes. Exactly.</p> <p>6 Q. Okay. And you're not saying    7 that the sort of black box that data is    8 going into is the right or the only    9 algorithm to be used on that data. You    10 are just the one who is actually doing    11 the calculations; is that correct?</p> <p>12 A. Well, close. It's not a    13 black box at all. A black box is    14 something where something -- data goes in    15 and results come out and you can't tell    16 what's happening. In fact, this is not a    17 black box. It's the opposite of that.</p> <p>18 I'm describing for you in    19 detail, I think, exactly what's being    20 done to the data. I don't take a    21 position on whether -- which or if any of    22 these algorithms and the associated    23 assumptions are appropriate, I think was    24 the word you used earlier?</p>
<p>1 Q. And you say that the    2 algorithms can be systematically applied.    3 Do you see where it says that?</p> <p>4 A. Yes.</p> <p>5 Q. And in saying can be    6 systematically applied, are you saying    7 that they are appropriate or should be    8 applied or -- are you taking that    9 opinion?</p> <p>10 A. No, I think that would get    11 into some subject matter expertise that    12 I'm not claiming to have. I was asked to    13 implement these algorithms, which at some    14 broad level, has some assumptions. And    15 then make an additional assumption or    16 two, apply it to the data and report out    17 the results. And that's what I've done.</p> <p>18 Q. So speaking in a broad    19 level, which I think makes sense to start    20 and then we'll get a little bit more    21 specific.</p> <p>22 And I don't mean this to be    23 pejorative in any way. But is it fair to    24 say that you are serving in a role like a</p>	<p>1 Q. Yep.</p> <p>2 A. I'm just saying that you    3 take the -- the data that we've prepped,    4 and apply these formulas to it, you get    5 particular results.</p> <p>6 Q. And is that also true not    7 only about whether those algorithms, the    8 assumptions, are appropriate, but also    9 true that you are not making any opinion    10 as to whether they are legally required?</p> <p>11 A. Right. I think all of these    12 issues are being handled by other    13 experts. I -- as you said a minute ago.    14 And I didn't take it as a pejorative.    15 I'm just serving as a calculator.</p> <p>16 Q. And in this Paragraph 21 you    17 use the -- the phrase "algorithms" to    18 discuss what's being applied in    19 Section 9. But you also use the word    20 "approaches" later I believe.</p> <p>21 Are you saying the same    22 thing?</p> <p>23 So are -- in -- calling it    24 algorithms here in Paragraph 21, are you</p>

Page 130	Page 132
<p>1 describing what you later in your report      2 call an approach, Approach 1, Approach 2,      3 Approach 3?      4 A. Yes.      5 Q. Let's take a look at      6 Section 9. So in particular I'll point      7 you to Paragraph 130, which is -- starts      8 on Page 56.      9 Are you there?      10 A. Yes.      11 Q. Great. And the section      12 heading is "Transaction Analysis."      13 Do you see that?      14 A. Yes.      15 Q. And this is what we were      16 just referring to when we were talking      17 about the algorithms?      18 A. Yes.      19 Q. And Paragraph 130 starts, "I      20 implemented various approaches to      21 identify transactions meeting specified      22 criteria using the non-public ARCOS data      23 from 2006 to 2014, supplemented with      24 defendant transaction data where the</p>	<p>1 Q. Okay. And you didn't -- you      2 didn't apply any other criteria?      3 A. Not that I can think of.      4 Q. Okay. In that Paragraph 130      5 that I just read out, you say at the      6 beginning that you implemented various      7 approaches. And is that talking about      8 the approaches that are discussed later      9 in that section, Approaches 1, 2, 3, 4      10 and 5?      11 A. Yes.      12 Q. You are not talking about      13 anything else than that?      14 A. Correct.      15 Q. And then you have five      16 approaches in this report; is that      17 correct?      18 A. Yes.      19 Q. And the first one is the      20 maximum monthly trailing six-month      21 threshold, correct?      22 A. Correct.      23 Q. And the second is the twice      24 trailing 12-month average pharmacy dosage</p>
<p>1 ARCOS data is obviously missing      2 transactions that are included in the      3 transactions produced by defendants in      4 discovery, and to the extent I have      5 defendant transaction data for the      6 periods before 2006 and after 2014, I      7 calculated the results separately for      8 each of the 12 controlled substance drug      9 codes."      10 Do you see that?      11 A. Yes.      12 Q. And then you have a footnote      13 there that "you do not analyze      14 transactions in two treatment drugs,      15 buprenorphine and methadone."      16 Do you see that?      17 A. Yes.      18 Q. How did you pick that list      19 of 12 controlled drug codes?      20 A. Well, by taking the 14 drug      21 codes we received from the DEA and      22 excluding the two, what I understand to      23 be treatment drugs identified in      24 Footnote 54.</p>	<p>1 units, correct?      2 A. Yes.      3 Q. And we can do it slower,      4 sorry, you're flipping through.      5 MR. MOUGEY: Which page are      6 you referencing?      7 MS. McENROE: I'm just going      8 through a list of them, but --      9 MR. MOUGEY: Right.      10 MS. McENROE: -- that's      11 fine.      12 BY MS. McENROE:      13 Q. The third one starts on      14 Page 64. So the third one is the three      15 times trailing 12-month average pharmacy      16 dosage units; is that correct?      17 A. Yes.      18 Q. The fourth one starts on      19 Page 68, is the maximum 8,000 dosage      20 units monthly; is that correct?      21 A. Yes.      22 Q. And the fifth one, starts on      23 Page 72, is maximum daily dosage units.      24 Do you see that?</p>

Page 134	Page 136
<p>1       A. I do.</p> <p>2       Q. So if I refer to your five</p> <p>3 approaches, will you understand that I'm</p> <p>4 referring to those five approaches as</p> <p>5 I've just read them out?</p> <p>6       A. Yes.</p> <p>7       Q. Did you apply any other</p> <p>8 approaches aside from those five in</p> <p>9 reaching your conclusions?</p> <p>10      A. Not with respect to the</p> <p>11 conclusions I reached in Section 9 at</p> <p>12 least.</p> <p>13      Q. Okay. From where did you</p> <p>14 get the five approaches that you apply in</p> <p>15 Section 9?</p> <p>16      A. From discussions with</p> <p>17 counsel.</p> <p>18      Q. Who? Is it the same list of</p> <p>19 people that we discussed earlier today?</p> <p>20      A. Yes. There may be some</p> <p>21 additional lawyers whose names didn't</p> <p>22 come to mind when I was giving you the</p> <p>23 names of people I interacted with</p> <p>24 earlier.</p>	<p>1       Q. Okay. So just so that I can</p> <p>2 make sure that I have it all straight.</p> <p>3 So you got the five approaches from</p> <p>4 plaintiffs' counsel, and you applied them</p> <p>5 to the data, and that's it, with respect</p> <p>6 to Section 9?</p> <p>7       A. Correct.</p> <p>8       Q. So it's fair to say that any</p> <p>9 one of these approaches could be or could</p> <p>10 not be appropriate for use in this</p> <p>11 particular setting; you're just not</p> <p>12 taking an opinion on that one way or the</p> <p>13 other?</p> <p>14      A. Right. I think other</p> <p>15 witnesses are going to deal with that</p> <p>16 issue.</p> <p>17      Q. And just to make sure I'm</p> <p>18 totally clear, you're not opining</p> <p>19 anywhere that any of these approaches is</p> <p>20 or is not required by law in any way?</p> <p>21      A. Correct.</p> <p>22      Q. I think you mentioned</p> <p>23 earlier that there are certain</p> <p>24 assumptions that are built into your</p>
<p>1       Q. Anyone come to mind?</p> <p>2       A. It would be -- it would be</p> <p>3 something like that list and perhaps</p> <p>4 more.</p> <p>5       Q. Anyone in particular that</p> <p>6 you think you left out earlier that comes</p> <p>7 to mind?</p> <p>8       A. No.</p> <p>9       Q. Did you get any input on</p> <p>10 these five approaches from any of your</p> <p>11 discussions with current or former DEA</p> <p>12 agents?</p> <p>13      A. No.</p> <p>14      Q. Did you take any other step</p> <p>15 to verify with the DEA that any or all of</p> <p>16 these approaches are appropriate in this</p> <p>17 setting?</p> <p>18      A. I'm sorry. I don't know</p> <p>19 what you mean by any other, but I didn't</p> <p>20 do anything other than serve as the</p> <p>21 computer, you referred to me as earlier.</p> <p>22 I took these approaches and implemented</p> <p>23 them, applied them to the data. That's</p> <p>24 what I did.</p>	<p>1       approaches. Do you remember mentioning</p> <p>2 that?</p> <p>3       A. Yes.</p> <p>4       Q. Let's take a look at Page</p> <p>5 100 -- sorry, Paragraph 131 of your</p> <p>6 report.</p> <p>7       This is under the Heading A,</p> <p>8 "Maximum Monthly Trailing Six-Month</p> <p>9 Thresholds."</p> <p>10      Do you see that?</p> <p>11      A. Yes.</p> <p>12      Q. Okay. And in this</p> <p>13 paragraph, it starts, "Under the first</p> <p>14 approach, I identify transactions that</p> <p>15 cause the number of dosage units shipped</p> <p>16 by a distributor to a pharmacy in a</p> <p>17 calendar month to exceed the highest</p> <p>18 number of dosage units shipped by the</p> <p>19 distributor to the pharmacy in any one of</p> <p>20 the six preceding calendar months."</p> <p>21      Did I read that correctly?</p> <p>22      A. Yes.</p> <p>23      Q. And then you go on and you</p> <p>24 have an example, right? It says, "For</p>

Page 138	Page 140
<p>1 example, if the number of dosage units  2 containing hydrocodone shipped from a  3 distributor to a pharmacy in February,  4 March, April, May, June, and July, were  5 5,000, 10,000, 7,000, 8,000, 9,000, and  6 9,500 respectively, a requested  7 transaction in August would be flagged,  8 if it would cause the number of dosage  9 units containing hydrocodone, the  10 distributorship to the pharmacy, to  11 exceed 10,000."</p> <p>12 Did I read that correctly?</p> <p>13 A. Yes.</p> <p>14 Q. And then it continues, "Any  15 reported transactions containing  16 hydrocodone on that date and all reported  17 transactions containing hydrocodone from  18 that distributor to that pharmacy  19 thereafter are flagged."</p> <p>20 Did I read that correctly?</p> <p>21 A. Yes.</p> <p>22 Q. And is that all part of an  23 approach that came from plaintiffs'  24 counsel? So that's what they asked you</p>	<p>1 Paragraph 132 also from direction of  2 counsel?</p> <p>3 A. Yeah, so I might shorten  4 that sentence up a great deal, because  5 there's some of that sentence that's not  6 necessary to describe our implementation.</p> <p>7 Q. Explain to me what you mean  8 by that.</p> <p>9 A. Well, as it's written, as I  10 wrote it --</p> <p>11 Q. Yeah.</p> <p>12 A. -- I said counsel asked me  13 to assume that the distributor did not  14 effectively investigate the flagged  15 transactions. And so every subsequent  16 transaction of that drug code is also  17 flagged because the distributor had an  18 unfulfilled obligation to detect and  19 investigate the first flagged  20 transaction.</p> <p>21 Operationally, you could  22 condense that to just say, I was asked to  23 flag every subsequent transaction after  24 the first transaction is flagged. It</p>
Page 139	Page 141
<p>1 to do in this approach?</p> <p>2 A. I'm pausing just for a  3 second to make sure when you say, is that  4 all, prior to the instruction that I got  5 from counsel, I think the answer is yes.</p> <p>6 Q. Paragraph 132 says, "In this  7 approach and the others implemented  8 below" -- just pausing there for a  9 second. The others implemented below are  10 the rest of the five approaches in this  11 Section 9; is that correct?</p> <p>12 A. Yes.</p> <p>13 Q. So it says, "In this  14 approach, and the others implemented  15 below, I have been asked by counsel to  16 assume that the distributor did not  17 effectively investigate the flagged  18 transactions, and so every subsequent  19 transaction of that drug code is also  20 flagged because the distributor had an  21 unfulfilled obligation to detect and  22 investigate the first flagged  23 transaction."</p> <p>24 Is that assumption made in</p>	<p>1 doesn't need the rest of the context to  2 describe the calculation that I did.</p> <p>3 It's there because I'm sort  4 of describing my understanding, but it's  5 not necessary to describe the  6 calculations. Just if you hit a flag,  7 everything after that is flagged. And  8 some other witness will deal with whether  9 there was effective due diligence and  10 whether in the absence of that there was  11 an ongoing duty that should trigger a  12 flag on all the subsequent transactions.</p> <p>13 Q. Is it your assertion after  14 the because -- so where it says -- you  15 know, it says the first part that you  16 were just reading, and then it says,  17 "Because the distributor had an  18 unfulfilled obligation to detect and  19 investigate the first flagged  20 transactions."</p> <p>21 Is that coming from you or  22 is that coming from plaintiffs' counsel,  23 the reasoning of the because?</p> <p>24 A. It's coming from the</p>

<p style="text-align: right;">Page 142</p> <p>1 plaintiffs' counsel. I don't -- you 2 know, I was asked to assume everything 3 that's in that sentence, including that 4 last clause that you've read. 5 Q. And just so I make sure that 6 I understand, that assumption -- that is, 7 flagging every subsequent transaction for 8 that specific drug after you have a 9 flagged transaction -- you apply across 10 all five of the methodologies or 11 approaches used in Section 9; is that 12 correct? 13 A. Correct. 14 Q. For every distributor, for 15 each of the drugs that you use or 16 manufacture as appropriate for the second 17 supplemental report? 18 A. Correct. 19 Q. So that I understand and 20 make sure we're totally clear. You have 21 a methodology that you explain here in 22 Paragraph 131 regarding the maximum 23 monthly trailing six-month threshold; is 24 that correct? We were just talking about</p>	<p style="text-align: right;">Page 144</p> <p>1 application of the rule. 2 Q. I see. Okay. So I see. So 3 I just want to make sure that the 4 transactions that come later could be 5 more than the trailing six months before 6 it or they could be lower than the 7 trailing six months before it, but 8 they're flagged because they are coming 9 after one triggering entry? 10 A. Correct. 11 Q. And did you do the analysis, 12 if you didn't use that assumption about 13 the subsequent flagging after you have 14 one triggering entry about how many of 15 the entries would be flagged or not 16 flagged if you didn't use that 17 assumption? 18 MR. MOUGEY: Objection. 19 THE WITNESS: I'm sorry, 20 could you repeat that again? 21 BY MS. McENROE: 22 Q. Sure. 23 A. The static is -- 24 BY MS. McENROE:</p>
<p style="text-align: right;">Page 143</p> <p>1 that. 2 A. Yes. 3 Q. Okay. And then once you 4 have a triggering entry, the rest of them 5 are flagged. Do you apply that maximum 6 monthly trailing six-month threshold to 7 those remaining subsequent transactions 8 in any way? 9 A. Yes. 10 Q. And how is that? Because if 11 they seem that you have a triggering and 12 the rest of them are all just flagged, 13 are you doing the analysis of the rest of 14 them, of which ones should be flagged and 15 which ones should not? 16 A. No. The end of your prior 17 question was "in any way." And what I 18 meant by saying yes to that is that those 19 subsequent transactions are only flagged 20 because of the application of that rule, 21 having flagged one transaction. Anything 22 after that is flagged. So they are 23 affected, the identification of those 24 transactions are affected by the</p>	<p style="text-align: right;">Page 145</p> <p>1 Q. It's a little distracting. 2 MS. McENROE: Anybody on the 3 line, if you can make sure to mute 4 yourself, that would be greatly 5 helpful. 6 Thank you. 7 BY MS. McENROE: 8 Q. So my question is this, did 9 you run an analysis applying any of your 10 approaches to the transactions that are 11 flagged because of the assumption based 12 on them being subsequent transactions to 13 one that had been flagged, to see what 14 proportion of those would be flagged or 15 not flagged in their own right regardless 16 of the assumption about the first 17 triggering transaction? 18 MR. MOUGEY: Objection. 19 THE WITNESS: Not for 20 purposes of this report. And -- 21 and in some prior analysis of the 22 data, getting to understand the 23 data, we did some variations like 24 what you described. I don't know</p>

<p>1 if it's exactly what you 2 described. But we -- we did other 3 analysis.</p> <p>4 BY MS. McENROE:</p> <p>5 Q. Without that assumption 6 about the first triggering transaction 7 flagging the remainders?</p> <p>8 A. Correct.</p> <p>9 Q. Across the different -- the 10 five different approaches?</p> <p>11 A. I don't recall whether that 12 is correct or not.</p> <p>13 Q. So you don't know one way or 14 the other, but you may have?</p> <p>15 A. Correct.</p> <p>16 Q. And do you have a sense of 17 the difference that this one assumption 18 makes about flagging the subsequent 19 transactions in terms of the number of 20 transactions or the proportion of 21 transactions that are flagged?</p> <p>22 MR. MOUGEY: Objection.</p> <p>23 THE WITNESS: I have some 24 general intuition. I don't</p>	<p>Page 146</p> <p>1 Q. What do you mean by a 2 flagged transaction?</p> <p>3 A. Well, for my purposes it's 4 just a -- an example we were looking at a 5 minute ago, a fairly simple, if-then 6 step. I think of everything I -- I've 7 done here in terms of what you can do in 8 Excel. And so imagine that you've got 9 numbers in two columns and you've got a 10 rule that says if Column A exceeds 11 Column B, put a one in that cell. And I 12 would think of that one as a flag. And 13 the absence of that one, signifying that 14 A does not exceed B, being an unflagged 15 transaction.</p> <p>16 And then it's only a slight 17 further modification to say in that third 18 column, it's a one if A exceeds B or if 19 the column above -- the value above is 20 one. And then you would just fill in 21 ones in every cell after the first time A 22 exceeds B.</p> <p>23 And all I mean by flagging 24 is that it's got that checkmark or one</p>
<p>1 have -- I don't -- I don't have a 2 quantified answer for you. But I 3 have a general intuition.</p> <p>4 BY MS. McENROE:</p> <p>5 Q. What's your general 6 intuition?</p> <p>7 A. Well, because for most of 8 these defendants, you see a substantial 9 increase over time, especially leading up 10 to 2010 or 2011. If you reset that 11 trailing six-month maximum to be the 12 maximum of the most recent six months, 13 then you end up with fewer transactions 14 being flagged.</p> <p>15 Q. Okay. So it would be a 16 downward trend if you took away the 17 assumption about the subsequent 18 transactions being flagged?</p> <p>19 A. Correct.</p> <p>20 Q. We've been using the 21 terminology of a transaction being 22 flagged. And that's language you used in 23 your report as well, correct?</p> <p>24 A. Correct.</p>	<p>Page 147</p> <p>1 for that transaction and everything that 2 follows it.</p> <p>3 Q. Are you of the opinion that 4 a flagged transaction means that that 5 transaction represents a suspicious 6 order?</p> <p>7 A. That's way beyond my report, 8 I think.</p> <p>9 Q. Are you --</p> <p>10 A. I'm sorry, I apologize. I 11 don't have an opinion one way or the 12 other. If -- if you inferred from my 13 answer that I think it means that it is 14 not a suspicious order, I didn't mean 15 that. I just mean I don't have an 16 opinion one way or the other.</p> <p>17 Q. Understood. But just to 18 make sure we are speaking the same 19 language. It's fair to say that you are 20 not taking the opinion that a flagged 21 transaction is necessarily a suspicious 22 order?</p> <p>23 A. Correct.</p> <p>24 Q. And it's also fair to say</p> <p>Page 149</p>

Page 150	Page 152
<p>1 that you are not saying that a flagged  2 transaction is necessarily illegal or  3 representative of illegal conduct?</p> <p>4 A. Correct.</p> <p>5 Q. It's also fair to say that a  6 flagged transaction in your opinion does  7 not necessarily mean there's been a  8 failure of due diligence?</p> <p>9 A. Correct.</p> <p>10 Q. I want to take a look real  11 quick specifically at this first  12 approach, the maximum monthly trailing  13 six-month threshold.</p> <p>14 And I want to -- your --  15 your -- strike that.</p> <p>16 Your example here is very  17 helpful for understanding it, so I  18 appreciate that.</p> <p>19 But I want to get an  20 understanding for, in practical terms,  21 various of the defendants for different  22 reasons may have gaps in their data. So  23 for example, they may have been serving a  24 pharmacy for a period of time, the</p>	<p>1 there's been a gap there.  2 If the pharmacy purchases  3 from the distributor again in  4 January 2008, how do you set that  5 threshold when you pick up again with the  6 distribution to that pharmacy?</p> <p>7 A. Well, that's a good  8 question. That's a hypothetical I hadn't  9 thought of. I'd have to look at the data  10 and see the -- and see how -- how  11 significant that is.</p> <p>12 A slight variant on your  13 hypothetical would be if -- if the  14 pharmacy had bought from the distributor,  15 let's say in four of the previous six  16 months, then it would be just as I  17 described it there in the example. If  18 you imagine in -- in March and May the  19 quantity is zero, so that the quantities  20 are 5,000, 7,000, 9,000, and 9,500, then  21 it still would be the case that if a  22 transaction in August put you past, in  23 this hypothetical, 9,500, not 10,000, you  24 would flag the transaction.</p>
<p>1 pharmacy switched to a different  2 distributor, and then went back to that  3 distributor.</p> <p>4 Are you familiar with those  5 kinds of changes or variations in the  6 data, just speaking generally?</p> <p>7 A. Yes.</p> <p>8 Q. Okay. How were gaps in the  9 data or entries without anything included  10 handled in figuring out the maximum  11 monthly trailing six-month threshold?</p> <p>12 A. I'm sorry, I don't think I'm  13 understanding that question.</p> <p>14 Q. Sure. So I have a  15 hypothetical for you. We can try and  16 walk through it to see if that helps to  17 clarify.</p> <p>18 A. Okay.</p> <p>19 Q. We have a pharmacy  20 purchasing from a distributor in January  21 through June, let's say of 2007. I'm  22 just picking a year. But does not  23 purchase from that distributor from July  24 through December of 2007. Okay? So</p>	<p>1 So blanks in the six-month  2 window don't affect the calculation. The  3 conditional statement is still, if the  4 cumulative transactions that month exceed  5 the highest of the preceding six calendar  6 months, you flag the transaction.</p> <p>7 We don't ever flag a  8 transaction in the first -- at least  9 under this methodology, in the first six  10 months of the purchases from a  11 distributor. But if a pharmacy is buying  12 from a distributor and then there's a gap  13 of greater than six months, six months or  14 greater, I'd have to think through and  15 maybe just check and see how that is  16 handled. It -- whether we handle it as  17 restarting the clock, but I just don't  18 recall as I sit here.</p> <p>19 Q. Do you know if you guys  20 input, you and your staff I should say,  21 input any threshold or baseline, if there  22 was no data included, so you would pick a  23 number and put it in there?</p> <p>24 A. No, not for that purpose.</p>

Page 154	Page 156
<p>1 There is another slight -- you'll see      2 in -- in the code, besides what's      3 described here, an assumption that's a      4 little bit conservative. You have to      5 exceed the prior six months maximum and      6 also exceed a thousand pills in my      7 recollection, a thousand dosage units.      8       So if you were -- if your      9 transactions were 100, 100, 100, 100,      10 200, we don't flag that transaction. So      11 there are sort of de minimus quantities      12 that are not being flagged. But I don't      13 recall anything else.</p> <p>14       Q. And with the application of      15 these approaches to the data, am I      16 correct that you were limiting the      17 analysis to shipments from distributors      18 to pharmacies and excluding other      19 shipments, for example, to hospitals and      20 clinics or other practitioners?</p> <p>21       A. In Section 9, that's      22 correct.</p> <p>23       Q. Across all five of the      24 approaches?</p>	<p>1       A. Right.      2       Q. Okay. And so I also just      3 want to get an understanding. A number      4 of your approaches use months as a unit.      5       A. Correct.      6       Q. Did you use calendar months?      7       A. Yes.      8       Q. Okay. So you didn't use      9 30 days as a more standardized month?      10       A. I don't know if more      11 standardized, but we're using calendar      12 months.</p> <p>13       Q. Calendar months. Okay. So      14 some could be 28 days or 31 days. It      15 could vary depending on whatever that      16 month is?</p> <p>17       A. Correct.</p> <p>18       Q. And that's true for each of      19 the approaches in Section 9 that uses a      20 month unit; is that fair?</p> <p>21       A. Yes.</p> <p>22       Q. We talked a little bit      23 earlier. You are not a pharmacist,      24 correct?</p>
<p>1       A. Yeah. So at least that was      2 our -- our intention was to only include      3 retail and chain pharmacies, to exclude      4 mail order pharmacies and what is      5 referred to, I think, as closed door      6 pharmacies.</p> <p>7       Q. What do you mean by closed      8 door pharmacies?</p> <p>9       A. Well, they would be things      10 like long-term care facilities perhaps,      11 or -- I don't know if you're from the      12 area, but near where I live there's a      13 Sunrise assisted living facility that I      14 drive past every day. And I think that's      15 my next home. And I think that there are      16 other locations of Sunrise around here.</p> <p>17       And in my mind, anyway, when      18 I refer to closed door pharmacy, I'm      19 thinking about a facility like that that      20 may have received drugs and sent them out      21 to patients in a residence and affiliated      22 facilities, but they're not taking      23 walk-in customers, if you will.</p> <p>24       Q. Sure. Off the street.</p>	<p>1       A. Correct.</p> <p>2       Q. Have you ever worked in a      3 pharmacy?</p> <p>4       A. No.</p> <p>5       Q. Aside from being a customer      6 at a pharmacy, do you have any      7 professional experience with pharmacies?</p> <p>8       A. No.</p> <p>9       Q. Fair to say that you are not      10 an expert in pharmacy practice?</p> <p>11       A. Yes.</p> <p>12       Q. And you're not an expert in      13 pharmacy business?</p> <p>14       A. Correct.</p> <p>15       Q. Fair to say you're not an      16 expert of wholesale pharmaceutical      17 distribution?</p> <p>18       A. Yes.</p> <p>19       Q. Fair to say you're not an      20 expert in pharmacy manufacture?</p> <p>21       A. Yes.</p> <p>22       Q. Have you -- strike that.</p> <p>23                   In your report, I don't see      24 anything making reference to the business</p>

Page 158	Page 160
<p>1 of pharmacy, so how pharmacies conduct  2 their business, for example how  3 frequently they order drugs. Did you do  4 any research or take in that -- take  5 those issues into account in any way in  6 your opinions?</p> <p>7 MR. MOUGEY: Objection.</p> <p>8 THE WITNESS: Yes, at least  9 in some sense.</p> <p>10 BY MS. McENROE:</p> <p>11 Q. And I can make it a little  12 bit of a crisper question. So have you  13 undertaken any study to understand how  14 pharmacies go about ordering drugs from a  15 distributor?</p> <p>16 A. No.</p> <p>17 Q. Do you have any  18 understanding of how frequently  19 pharmacies order drugs from a  20 distributor?</p> <p>21 A. Yes.</p> <p>22 Q. And do you have any  23 understanding that some pharmacies could  24 be on a set schedule, like a weekly</p>	<p>1 six months has either four or five weekly  2 orders in your hypothetical, then they're  3 all included.</p> <p>4 Q. Right. So I understand that  5 they get swept into the analysis because  6 that's just the way that the calendar  7 works, and they're part of those months.  8 But did you correct it out in any way to  9 more than standardize the fact that some  10 months may look bigger than other months  11 in your monthly based analyses in Section  12 9 because of the different variation of  13 how many weeks could be in a month?</p> <p>14 A. No, but I reject your color  15 in that question. I don't see anything  16 needs to be corrected. So when you say  17 did you correct something out, I'm  18 acknowledging that in -- in 12 months,  19 covering 52 weeks, some of those months  20 have four weeks in them, or you know,  21 some of them have five weeks, some of  22 them have five Thursdays, some have four  23 Thursday. I don't think that's something  24 to be connected. It's a fact of the</p>
<p>1 schedule?</p> <p>2 A. Yes.</p> <p>3 Q. And so using your calendar  4 month approach, would it be fair to say  5 that you could, for example, have some  6 months where a pharmacy might have four  7 orders and some months where a pharmacy  8 might have five orders in that specific  9 month?</p> <p>10 A. Yes.</p> <p>11 Q. Did you take that into  12 account in any way when you used your  13 monthly based approaches in Section 9?</p> <p>14 A. Yes.</p> <p>15 Q. How did you do that?</p> <p>16 A. Well, if -- if there are  17 five orders in a month in the first six  18 months or in the trailing six months, the  19 sum of those five shipments are in that  20 threshold, the month's total. And that  21 may or may not be the highest of the six  22 months totals.</p> <p>23 And if the month that you're  24 looking at, in comparison to the prior</p>	<p>1 data.</p> <p>2 And my read of the -- of the  3 data is as I described it, it's calendar  4 months, there's nothing to be connected.</p> <p>5 MS. McENROE: Okay. For the  6 record. I strike -- I move to  7 strike everything after "no."</p> <p>8 Thank you.</p> <p>9 BY MS. McENROE:</p> <p>10 Q. And so do you account in any  11 way in your analyses for legitimate  12 pharmacy growth over time?</p> <p>13 A. Well, I'm not a subject  14 matter expert or a lawyer. When you say  15 legitimate growth, I don't think that's a  16 question that I can answer for you.</p> <p>17 Q. Sure. So let me restate the  18 question a little bit differently. So  19 you're not a pharmacy business expert,  20 but you own a business, right?</p> <p>21 A. Correct.</p> <p>22 Q. And you've operated in the  23 business world. You've been an expert in  24 certain securities-related issues in the</p>

Page 162	Page 164
<p>1 business world; is that correct?</p> <p>2 A. Yes.</p> <p>3 Q. And you understand that over</p> <p>4 time, businesses can grow, not saying</p> <p>5 that they have to, that would be nice,</p> <p>6 but they can grow, right?</p> <p>7 A. Yes.</p> <p>8 Q. And there can be perfectly</p> <p>9 legitimate reasons for that. For</p> <p>10 example, your own consultancy has gotten</p> <p>11 bigger over time, I presume?</p> <p>12 A. Yes.</p> <p>13 Q. Do you agree that there</p> <p>14 could be perfectly legitimate reasons why</p> <p>15 a pharmacy business might grow over time?</p> <p>16 MR. MOUGEY: Objection.</p> <p>17 BY MS. McENROE:</p> <p>18 Q. You may answer.</p> <p>19 A. Yes.</p> <p>20 Q. Have you done any analysis</p> <p>21 of the DEA's quotas for opioids over</p> <p>22 time?</p> <p>23 A. No.</p> <p>24 Q. Do you have any</p>	<p>1 Q. It says, "Twice trailing</p> <p>2 12-month average pharmacy dosage units."</p> <p>3 Do you see that?</p> <p>4 A. Yes.</p> <p>5 Q. Great. And so Paragraph 136</p> <p>6 says, "I identified transactions that</p> <p>7 cause the number of dosage units shipped</p> <p>8 by a distributor to a pharmacy in a</p> <p>9 calendar month to exceed twice the</p> <p>10 trailing 12-month average dosage units to</p> <p>11 retail and chain pharmacies served by the</p> <p>12 distributor. I have been asked by</p> <p>13 counsel to assume that the distributor</p> <p>14 did not effectively investigate the</p> <p>15 flagged transactions, and so every</p> <p>16 subsequent transaction of that drug code</p> <p>17 is also flagged because the distributor</p> <p>18 had an unfulfilled obligation to detect</p> <p>19 and investigate the first flagged</p> <p>20 transaction."</p> <p>21 Did I read that correctly?</p> <p>22 A. Yes.</p> <p>23 Q. So the first sentence of</p> <p>24 Paragraph 136 is explaining what I'm</p>
<p>1 understanding of what that means?</p> <p>2 A. No.</p> <p>3 Q. In any of your approaches</p> <p>4 discussed in Section 9 of your report,</p> <p>5 did you take into account or analyze in</p> <p>6 any way how natural disasters or other</p> <p>7 changes may have impacted your output?</p> <p>8 So for example, if there was a hurricane</p> <p>9 in a certain area or something of the</p> <p>10 like?</p> <p>11 MR. MOUGEY: Objection.</p> <p>12 THE WITNESS: Not that I</p> <p>13 could think of as I sit here.</p> <p>14 BY MS. McENROE:</p> <p>15 Q. Okay. Do you have an</p> <p>16 understanding that there could be a</p> <p>17 legitimate reason why a pharmacy may have</p> <p>18 a spike in its needs?</p> <p>19 A. Yes.</p> <p>20 Q. Let's turn to Paragraph 136.</p> <p>21 So we're going to move into Approach</p> <p>22 Number 2. And this is -- do you see</p> <p>23 where I am, on Page 60?</p> <p>24 A. I do. Thank you.</p>	<p>1 calling Approach Number 2 or B, it's the</p> <p>2 second one, in your Section 9, correct?</p> <p>3 A. Yes.</p> <p>4 Q. And then the second sentence</p> <p>5 in Paragraph 136, is that articulating</p> <p>6 the same assumption we discussed just a</p> <p>7 minute ago regarding the flagging of</p> <p>8 every transaction after you have a</p> <p>9 triggering one?</p> <p>10 A. Yes.</p> <p>11 Q. Okay. And just to be clear,</p> <p>12 that assumption has been included in each</p> <p>13 of your five approaches for Section 9,</p> <p>14 correct?</p> <p>15 A. Yes.</p> <p>16 Q. So I want to get an</p> <p>17 understanding for the use of the word</p> <p>18 "average." And I know you probably know</p> <p>19 a lot more about averages than I do at</p> <p>20 least. So we're going to try to keep it</p> <p>21 simple if we can.</p> <p>22 What do you mean, or how did</p> <p>23 you arrive at the average used in this</p> <p>24 approach?</p>

<p style="text-align: right;">Page 166</p> <p>1       A. So again I think of things 2 in terms of what you could do in Excel or 3 I visualize it as an Excel spreadsheet if 4 I may?</p> <p>5       Q. Sure. Yeah, please.</p> <p>6       A. So let's suppose that you've 7 got a spreadsheet that has shipments 8 measured in dosage units of each drug 9 code from a distributor to all of the 10 pharmacies that they ship that drug code 11 to at any time in the last 12 months.</p> <p>12      Q. Over what geography?</p> <p>13      A. The country. So I'll make 14 it a little bit more concrete.</p> <p>15           Cardinal Health in January 16 of 2008, I look at what Cardinal Health 17 shipped to every pharmacy it ever shipped 18 to in 2007. And so the -- the columns 19 would be, in my example, the pharmacies 20 that it shipped to. And let's say that 21 there's 3,000 pharmacies across the 22 country. And down the -- the rows I have 23 the 12 months in 2007. And what I'm 24 filling in in that spreadsheet is the</p>	<p style="text-align: right;">Page 168</p> <p>1 spreadsheet, you would sum up all of the 2 rows and then divide them by the number 3 of entries that have something that's not 4 zero or negative?</p> <p>5       A. No. You are summing across 6 all of the observations at one time. So 7 in my example, let's say there's 100 8 pharmacies and 12 months. If there was 9 something shipped to each of the 10 pharmacies, you'd have 1200 observations. 11 100 pharmacies, 12 months.</p> <p>12           So you'd add up those 1200 13 numbers and you'd divide by 1200 to get 14 the average.</p> <p>15      Q. Thank you. And so you said 16 you skipped the zeros and you skipped the 17 negative.</p> <p>18           What do you mean by negative 19 entries in that setting? What kind of 20 observations are you talking about?</p> <p>21      A. Well, I don't know if there 22 were any, but it could be that there was 23 a return that would show up as a negative 24 dosage unit.</p>
<p style="text-align: right;">Page 167</p> <p>1       number of dosage units that Cardinal 2 Health shipped to each of those 3 pharmacies in each of those months in 4 2007 of a particular drug code.</p> <p>5           And then you could, in 6 Excel, just say, take the average of all 7 of that, where there's a positive number. 8 So if there's a zero or a negative, you 9 ignore it.</p> <p>10          Take the average of all of 11 the dosage units in any month to any of 12 the pharmacies. And whatever that 13 average is, is your threshold to multiply 14 by two or by three to determine whether 15 the shipments in January of 2008 get 16 flagged.</p> <p>17      Q. So that's for the way you 18 use the word "average" for your second 19 and third approaches in Section 9; is 20 that correct?</p> <p>21      A. Correct.</p> <p>22      Q. Okay. And so to make sure 23 I'm understanding, using your 24 hypothetical example of the Excel</p>	<p style="text-align: right;">Page 169</p> <p>1       Q. So you did not -- if there 2 were returns, you didn't back those out 3 of the totals you were using?</p> <p>4       A. In -- in some places that is 5 done. But I would not be -- I have to 6 confirm this, but I don't believe that in 7 my prior example if 1,199 entries were 8 positive and one of the entries was 9 negative, I included the negative. But 10 I'm just not 100 percent sure as I sit 11 here.</p> <p>12      Q. So you think you did take 13 that into account?</p> <p>14      A. Well, as I said, in -- in 15 some parts of the analysis, yes. It's -- 16 it's very de minimus, but I just -- I'm 17 not 100 percent certain as I sit here in 18 the example that I just gave you, if one 19 of those 1200 observations was a negative 20 number, how we dealt with it.</p> <p>21      Q. So is it fair to say that in 22 these five approaches in Section 9, you 23 don't know how returns were handled?</p> <p>24      A. My -- my recollection, I'd</p>

Page 170	Page 172
<p>1 have to confirm it, but my recollection      2 is that returns would be included in      3 the -- in the monthly totals that would      4 be in the 1200 cells in my example. And      5 the cumulative orders in January of 2008      6 would also include a return if there was      7 a return prior to the transaction that      8 flagged, got flagged and then caused all      9 subsequent transactions to be flagged.      10 That's a very de minimus issue, but I      11 just don't -- to be precise, I'm not --      12 I'm not 100 percent certain.</p> <p>13 Q. So taking a couple steps      14 back. In the application of these      15 various approaches, there is computer      16 code; is that fair to say?</p> <p>17 A. Yes.</p> <p>18 Q. And we defendants asked for      19 plaintiffs' counsel to provide us the      20 computer code, and -- and we got a large      21 amount of information regarding the codes      22 that you and your team used. Are you      23 aware of that?</p> <p>24 A. Yes.</p>	<p>1 Q. So, I am by no means an      2 expert on computer code. But I -- people      3 who are better at these things than I am      4 took a look at it. And what they told me      5 is there are three different ways that      6 you calculated an average, and then used      7 those three to reach the average you used      8 in your report. Does that sound familiar      9 to you?</p> <p>10 A. I'm sorry, it doesn't.</p> <p>11 Q. Okay. And that with doing      12 that, there were different files that had      13 source code and then different codes that      14 used that -- I'm sorry, there were      15 different datasets and code that used      16 those datasets. Are you familiar with      17 that kind of concept?</p> <p>18 A. Yeah. That's a different      19 issue, but yeah, certainly.</p> <p>20 Q. Yeah. And in doing those      21 averages, they did use some of those      22 datasets and certain code. Does that      23 make sense to you?</p> <p>24 A. Yes.</p>
<p style="text-align: center;">Page 171</p> <p>1 Q. Do you write computer code?      2 A. Not in 35 years.</p> <p>3 Q. Okay. Did you write any of      4 the computer code used in connection with      5 your opinions in this litigation?</p> <p>6 A. I don't believe so.</p> <p>7 Q. Did you review any of the      8 computer code used in this litigation?</p> <p>9 A. Yes.</p> <p>10 Q. And did you confirm that the      11 computer code as applied in this      12 litigation, reflects what you intended it      13 to reflect based on what you expressed in      14 your report?</p> <p>15 A. Yes.</p> <p>16 Q. And do you have an      17 understanding of how the computer code      18 calculates the averages used for the      19 second and third approaches in Section 9?</p> <p>20 A. Yes.</p> <p>21 Q. Can you please explain that      22 to me?</p> <p>23 A. Well, it's just as I      24 described it.</p>	<p style="text-align: center;">Page 173</p> <p>1 Q. Okay. In applying the      2 averages to the different defendants in      3 this case, is it your intention that each      4 defendant have their average calculated      5 in substantially the same way?</p> <p>6 A. Yes.</p> <p>7 Q. If that were not the case,      8 would that be a mistake?</p> <p>9 A. Not necessarily.</p> <p>10 Q. What do you mean by that?</p> <p>11 A. Well, I forget which, but      12 one of the defendants had -- had a little      13 or no data outside of Ohio, and so the      14 average would be calculated -- you could      15 think of it calculated on a state basis      16 instead of nationally.</p> <p>17 There may be other reasons      18 why. There might be some variation on      19 the general description that I gave you.      20 I'd have to look and see what your      21 consultants think they saw in the code      22 that they would do differently.</p> <p>23 I have -- I've attempted to      24 describe what the code did and I've</p>

Page 174	Page 176
<p>1 attempted to implement the code to 2 reflect what I intended. 3 It's -- it's possible that 4 someone would say that -- that an average 5 should be calculated differently or the 6 sequencing of steps in the code should be 7 done differently. 8 And I just have to evaluate 9 such an assertion. I -- I do not believe 10 any such evaluation would result in -- in 11 any material change in any calculation 12 that we did. 13 Q. Was it your intention that 14 different defendants would be treated 15 differently for the purposes of averages 16 depending on if the spelling of that 17 defendant's name matched in the source 18 data versus the code in which the data 19 was used? 20 A. Well, certainly not. We 21 tried to correct a lot of misspelling or 22 variations in spelling in the data. But 23 it's possible that we didn't catch all of 24 it.</p>	<p>1 certain defendants who have national data 2 available had their averages calculated 3 only for Summit and Cuyahoga Counties? 4 A. Yes. That would certainly 5 be true in some situations. 6 Q. But a couple minutes ago you 7 told me your intention was to calculate 8 national averages for the purposes of 9 your Approaches 2 and 3 in Section 9, 10 correct? 11 A. That's correct. 12 Q. So if what I'm telling you 13 is that some of the defendants who had 14 national data available actually had 15 their averages calculated based just on 16 Cuyahoga and Summit Counties, would that 17 be a mistake for those defendants? 18 A. No, I don't think so. I can 19 explain if you'd like. 20 Q. Please do. 21 A. But maybe I'm not 22 understanding your -- 23 Q. Well, please explain, and 24 then we can see if I'm --</p>
<p>1 Q. And it's possible that those 2 would then be mistakes? 3 A. I wouldn't think of them as 4 mistakes, no. It would be issues with 5 the data that the data we were provided 6 don't have standardized spelling or same 7 entity, named differently. And it would 8 be a mistake in the data, not in our 9 analysis. 10 Q. But your team wrote the 11 code, right? 12 A. Correct. 13 Q. So if the code names of the 14 defendants doesn't match the source 15 datasets such that the datasets are not 16 run in the code and you just get a whole 17 bunch of zeros, that would not be a 18 mistake in the dataset; that would be a 19 mistake in the code, correct? 20 A. I don't know. I'd have to 21 see the example and look at the data and 22 see whether -- whether the code should be 23 modified to pick up more transactions. 24 Q. Was it your intention that</p>	<p>1 A. Sure. 2 Q. -- trying to ask something 3 different. 4 A. So in Approach 2 and 3 5 you've got trailing 12-month averages. 6 And for some of the defendants, we get 7 individual defendant transaction data 8 prior to the ARCOS period, prior to 2006. 9 I'll use Cardinal as an example, because 10 I think we have data from Cardinal Health 11 going back to 1997. But we only have 12 that data for Cuyahoga and Summit, or 13 maybe for Ohio more broadly. For some of 14 the defendants we had more or less data 15 prior to 2006. 16 So for the -- for whatever 17 data we have from a defendant prior to 18 2006 we would calculate the average 19 across the pharmacies that they gave us 20 data for, up to January of 2007. 21 When you get to January of 22 2007, we then have 12 months of ARCOS 23 data. And so you would start using ARCOS 24 data nationally for the calculation. So</p>

<p>1 for some of those defendants, we're  2 using -- you could interpret that as  3 using state or county averages when  4 national data is available.  5       But if you're -- if I'm  6 articulating the calculation correctly, I  7 think you would agree that we should be  8 using the county or state data that the  9 defendants produced in the pre-ARCOS  10 period for calculating the averages up  11 through January of 2007.  12       So there's a data issue  13 there. If, in addition to that data  14 issue I identified for you, there's some  15 issue with some spelling or some other  16 issue that you think means that we've  17 applied a different methodology for  18 different defendants with the same data  19 available, I'm happy to look at that.  20 But there are situations where you would  21 use more narrow data even when national  22 data is available. And throughout 2006  23 would be a good example of that, and  24 after 2014 as well.</p>	Page 178	Page 180
<p>1       Q. You mentioned a little bit  2 earlier that your code needs to be run in  3 a particular sequence. Do you remember  4 that?  5       A. No. That's not the way I  6 said it.  7       Q. Okay. But to understand  8 what you did, you ran things in a certain  9 sequence when you were doing your  10 analysis, correct?  11      A. Correct.  12      Q. And is there a way that we  13 can tell from your report in what  14 sequence you took those different steps  15 to apply your approaches?  16      A. Yes.  17      Q. How?  18      A. Well, it's -- gets pretty  19 deep in the weeds. But the programming  20 has, as you were alluding to a few  21 minutes ago, some intermediate data files  22 that are created and then used by  23 subsequent modules of the code, or by  24 code written in other applications that</p>	Page 179	Page 181

Page 182	Page 184
<p>1 to you. Again, that would be my 2 intention.</p> <p>3 Q. So how could we recreate 4 your process without what you're calling 5 those temp files?</p> <p>6 A. Because they're described in 7 the code.</p> <p>8 Q. And your position is that 9 you've provided sufficient information 10 for us to know the sequencing of the code 11 that you ran?</p> <p>12 A. Yes.</p> <p>13 Q. And you don't have any other 14 documentation on the sequencing of the 15 code that you ran that we haven't been 16 provided with?</p> <p>17 A. That's correct.</p> <p>18 Q. If you were to start from 19 scratch and apply your own code afresh, 20 would you be able to do it in precisely 21 the same sequence that you did it the 22 first time based on what you provided to 23 us?</p> <p>24 A. I believe so. That was my</p>	<p>1 30 pages.</p> <p>2 And someone who's an expert 3 programmer will look at that and say, 4 okay, here are blocks of the text that 5 were executed the last time this code was 6 executed. But if I want to -- if I want 7 to execute some other text, I need to 8 uncomment some lines, or if as doing -- 9 in doing that I want to comment out some 10 other lines, or as I said, there might be 11 a data file that's referenced in 12 subsequent code, but the code above it 13 doesn't read in the data file and a 14 programmer would say, somehow Craig 15 inadvertently deleted or forgot to 16 include a single line here that says read 17 in a file that is mentioned in the next 18 paragraph of the code.</p> <p>19 So I do believe that I 20 provided you all of the code that will do 21 everything that you've asked for.</p> <p>22 Q. All right. Let's take a 23 look at Paragraph 140 on Page 64. And 24 this is the three times trailing 12-month</p>
Page 183	Page 185
<p>1 intention.</p> <p>2 Q. Is it your intention that 3 our experts would be able to apply the 4 code that you provided to us in exactly 5 the same sequence based on what you've 6 provided to us?</p> <p>7 A. If they're experienced 8 programmers, yes. As I said, there might 9 be a couple of instances where, when you 10 run the code -- I know you don't want me 11 to take much time. But maybe if I could 12 take 30 seconds, I could explain it.</p> <p>13 Q. Please.</p> <p>14 A. So again, think of the code 15 as 30 pages of text file. And as we're 16 running the code to create a table or a 17 figure or do some analysis or create an 18 intermediate file, you're choosing which 19 part of that 30 pages to run and which 20 part not to run.</p> <p>21 And so you can't run 22 necessarily all 30 pages. You are 23 executing some part of the code. And 24 what we provided to you was all of that</p>	<p>1 average pharmacy dosage units. 2 Do you see that?</p> <p>3 A. Yes.</p> <p>4 Q. And Paragraph 140 says, "I 5 identified transactions that caused the 6 number of dosage units shipped by a 7 distributor to a pharmacy in a calendar 8 month to exceed three times the trailing 9 12-month average dosage units to retail 10 and chain pharmacies served by the 11 distributor. I have been asked by 12 counsel to assume that the distributor 13 did not effectively investigate the 14 flagged transactions so every subsequent 15 transaction of that drug code is also 16 flagged because the distributor had an 17 unfulfilled obligation to detect and 18 investigate the first flagged 19 transaction."</p> <p>20 Do you see that?</p> <p>21 A. Yes.</p> <p>22 Q. And is that substantially 23 the same as what we discussed about your 24 second approach, the two times trailing</p>

Page 186	Page 188
<p>1 12-month average with respect to your 2 assumption on the subsequent transactions 3 being flagged? 4 A. Yes. 5 Q. And so it's fair to say that 6 the language following "because at the 7 end, the distributor had an unfulfilled 8 obligation to detect and investigate the 9 first flagged transaction," those are not 10 your words, that's not your concept? 11 A. Correct. That sentence 12 could be collapsed to about eight words. 13 Q. Okay. Talking about first 14 this specific approach, the three times 15 trailing 12-month average. There is no 16 citation for where it comes from; is that 17 right? 18 A. Except in the first 19 paragraph that introduces Section 9 where 20 I say that I was asked to implement these 21 algorithms by plaintiffs' counsel. So 22 the cite would be plaintiffs' counsel. 23 Q. Okay. So the cite would be 24 plaintiffs' counsel. It's not some other</p>	<p>1 transaction." 2 Did I read that correctly? 3 A. Yes. 4 Q. Just like we talked about 5 with your third approach, I don't see a 6 cite for the source of this fourth 7 approach. Is it also plaintiffs' 8 counsel? 9 A. Yes. 10 Q. And is it also the same as 11 to the assumption that the concept 12 towards the end following the "because 13 the distributor had an unfulfilled 14 obligation to detect and investigate the 15 first flagged transaction," that's not 16 your words, that's counsel's words? 17 A. Correct. 18 I'm sorry, I would say it a 19 little bit differently. 20 As I said a couple of times 21 now when we talked about that sentence 22 which we see five times in the report, it 23 could be condensed to just say I've been 24 asked by counsel to flag all subsequent</p>
<p>1 industry document or guidance like we 2 talked about earlier with respect to any 3 of the approaches, correct? 4 A. Correct. 5 Q. Your fourth approach starts 6 at Paragraph 144. Do you see that on 7 Page 68? 8 A. Yes. 9 Q. It says maximum 8,000 dosage 10 units monthly; is that correct? 11 A. Yes. 12 Q. And it says, on 13 Paragraph 144, "I identify transactions 14 that cause the number of dosage units 15 shipped by a distributor to a pharmacy in 16 a calendar month to exceed 8,000 dosage 17 units. I have been asked by counsel to 18 assume that the distributor did not 19 effectively investigate the flagged 20 transactions and so every subsequent 21 transaction of that drug code is also 22 flagged because the distributor had an 23 unfulfilled obligation to detect and 24 investigate the first flagged</p>	<p>1 transactions after a transaction has been 2 flagged. And it could be full stop with 3 that. 4 Q. Okay. 5 A. It doesn't require the rest 6 of what's in that sentence. 7 Q. And the rest of that 8 sentence is not your opinion? 9 A. Correct. 10 Q. And you don't have a basis 11 other than counsel for including that in 12 your report? 13 A. It's not an opinion I have. 14 Q. Okay. Taking a quick look 15 at Page 72, Paragraph 148. You'll see 16 maximum daily dosage units. 17 Do you see that? 18 A. Yes. 19 Q. And this is your fifth 20 approach, right? 21 A. Correct. 22 Q. And Paragraph 148 says, "I 23 identified transactions that caused the 24 number of dosage units shipped by a</p>

Page 190	Page 192
<p>1 distributor to a pharmacy in a day to      2 exceed a number of dosage units that      3 varies by drug type and within some drug      4 types by formulation."</p> <p>5        Then you have a citation.      6 We'll get back to that in a second.      7        And then it says, "I have      8 been asked by counsel to assume that the      9 distributor did not effectively      10 investigate the flagged transactions and      11 so every subsequent transaction of that      12 drug code is also flagged because the      13 distributor had an unfulfilled obligation      14 to detect and investigate the first      15 flagged transaction."</p> <p>16        Did I read that accurately?</p> <p>17        A. Yes.</p> <p>18        Q. And this is describing the      19 fifth approach that we talked about a      20 little bit earlier?</p> <p>21        A. Yes.</p> <p>22        Q. And in that last clause      23 following the "because," this is the same      24 language we were just discussing, that</p>	<p>1 implement an approach that uses the daily      2 thresholds in that document.</p> <p>3        Q. Are you taking any position      4 or making any opinion on the      5 appropriateness or that lack thereof, of      6 applying those thresholds from that      7 document cited in Footnote 55?</p> <p>8        A. No.</p> <p>9        Q. Substantively, do you have      10 an understanding of what that document      11 is?</p> <p>12        A. I have a general      13 understanding, not an expert opinion.      14 But a general understanding of the      15 document.</p> <p>16        Q. And how did you come to a      17 general understanding of that document?</p> <p>18        A. Well, I reviewed it. It's a      19 two-page document. I think it's a      20 Cardinal Health document. And it gives,      21 on those two pages -- I've heard it      22 referred to as the cage vault rule. I'm      23 not sure exactly the significance of that      24 term.</p>
<p>1 the distributor had an unfulfilled      2 obligation to detect and investigate the      3 first flagged transaction, like we talked      4 about, is not an opinion of yours, that      5 was provided to you by plaintiffs'      6 counsel, correct?</p> <p>7        A. Yes.</p> <p>8        Q. Why did you cite to the      9 document you have in Paragraph Number 55?</p> <p>10        A. Well, because there's a      11 daily threshold that varies across the      12 drugs and it's a little bit more      13 complicated than the first four methods,      14 how you identify a flag. And so rather      15 than itemize in the footnote what each of      16 the daily thresholds are by drug, we cite      17 to the document where we used values for      18 the daily thresholds, where we find --      19 I'm sorry, where we find values for the      20 daily thresholds.</p> <p>21        Q. How did you come to cite      22 that document in Footnote 55?</p> <p>23        A. The document was provided to      24 us by counsel and we were asked to</p>	<p>1        But my understanding is      2 that -- that it -- it limited shipments      3 or flagged shipments of the various drugs      4 that are listed there to a certain amount      5 per day.</p> <p>6        The significance is not --      7 is -- for me is just a list of drugs and      8 a list of numbers, daily limits. I -- I      9 don't -- I didn't investigate the origin      10 of that document or how it might have      11 been used in realtime.</p> <p>12        Q. Sure. And was that document      13 provided to you?</p> <p>14        You mentioned it was a      15 two-page document?</p> <p>16        A. That's my recollection.</p> <p>17        Q. Was it provided to you as      18 part of a thicker document or just as a      19 two-page document?</p> <p>20        A. I don't know.</p> <p>21        Q. And you said sometimes it's      22 referred -- referred to as the cage vault      23 rule. By whom?</p> <p>24        A. I've heard my staff refer to</p>

<p style="text-align: right;">Page 194</p> <p>1 it as cage vault. I don't know what the 2 origin of that term is. 3 Q. Okay. 4 A. When you are at a good 5 stopping point for a comfort break -- 6 Q. Let's take a break right 7 now. Perfect. Let's do it. 8 THE VIDEOGRAPHER: Off the 9 record at 2:14 p.m. 10 (Short break.) 11 THE VIDEOGRAPHER: We are 12 back on the record at 2:43 p.m. 13 BY MS. McENROE: 14 Q. Dr. McCann, could you please 15 turn to Page 76 of your report. There's 16 a section headed "Additional 17 Information." 18 Do you see that? 19 A. No. I'm sorry. "Additional 20 Identification." 21 Q. Additional -- did I -- yes, 22 sorry, I'll start over. 23 So we're on Page 76, right 24 above Paragraph 152 is a header that says</p>	<p style="text-align: right;">Page 196</p> <p>1 Q. "Additional charts and 2 tables reflecting the result of applying 3 methodologies below to each chain 4 distributor are in Appendix 11." 5 With my couple hiccups, did 6 I read that correctly? 7 A. Yes. 8 Q. Okay. And so if I'm 9 understanding correctly, you took the 10 five approaches from earlier in Section 9 11 of your report and rerun -- reran them 12 here, but looking at the chain 13 distributors from the perspective of what 14 they were receiving as customers? Is 15 that a fair way to characterize it? 16 A. Yes. I didn't think of it 17 that way, but that's -- that's right I 18 think. 19 Q. And the assumptions and 20 understandings that we discussed earlier 21 today with respect to the five 22 methodologies or approaches, those 23 assumptions would continue to hold true 24 as applied here in the additional</p>
<p style="text-align: right;">Page 195</p> <p>1 "Additional Identification," correct? 2 A. Yes. 3 Q. It says, "I have been asked 4 by counsel to assume that chain 5 distributors may have had knowledge of -- 6 or information available to inform them 7 of -- opioid shipments from all 8 distributors to the chain distributors' 9 affiliated pharmacies." 10 Do you see that? 11 A. Yes. 12 Q. Did I read that correctly? 13 A. Yes. 14 Q. And it goes on to say, "I 15 have rerun the five identification 16 routines described above assuming that 17 the chain distributors could have flagged 18 transactions based on this expanded 19 information set and the report" -- "and 20 report the results for the chain 21 distributors in Tables 34 through Table 22 43 below." 23 (Telephonic interruption.) 24 BY MS. McENROE:</p>	<p style="text-align: right;">Page 197</p> <p>1 identification section, correct? 2 A. Correct. 3 Q. Do you have any 4 understanding of the legal claims brought 5 against what you're referring to as the 6 chain distributors? 7 A. No. 8 Q. Have you read the complaint 9 in this case? 10 A. I did. 11 Q. Do you have -- do you know 12 that the chain distributors are not being 13 sued in their dispensing capacity, so for 14 the pharmaceuticals that they were buying 15 and dispensing out to patients? Do you 16 have an understanding one way or the 17 other? 18 A. That's my general 19 understanding, that there -- yes, what 20 you just said is consistent with my 21 general understanding. 22 Q. So you think the chain 23 distributors are being sued because 24 they're pharmacies and how they dispense</p>

Page 198	Page 200
<p>1 the drugs?</p> <p>2 A. No. It's the opposite.</p> <p>3 What I'm saying is I agree -- my general</p> <p>4 understanding, as you said a minute ago,</p> <p>5 that they are being sued as distributors,</p> <p>6 not as pharmacies.</p> <p>7 Q. Okay. And looking, for</p> <p>8 example, at Table 34 on the top of Page</p> <p>9 77, just using Rite Aid as an example,</p> <p>10 you have numbers populated in each of</p> <p>11 those columns, correct?</p> <p>12 A. Correct.</p> <p>13 Q. So for oxycodone,</p> <p>14 hydrocodone, morphine, hydromorphone,</p> <p>15 oxymorphone, and other; is that correct?</p> <p>16 A. Correct.</p> <p>17 Q. And that would represent the</p> <p>18 drugs that were flowing to Rite Aid</p> <p>19 pharmacies for each of those different</p> <p>20 types of drugs, correct?</p> <p>21 A. Correct.</p> <p>22 Q. Some of which may have been</p> <p>23 distributed by Rite Aid to itself and</p> <p>24 some of which may not, correct?</p>	<p>1 Q. And looking back at</p> <p>2 Paragraph 152, there's a sentence towards</p> <p>3 the middle that starts, "I have rerun."</p> <p>4 Do you see that sentence?</p> <p>5 A. Yes.</p> <p>6 Q. "I have rerun the five</p> <p>7 identification routines described above</p> <p>8 assuming that the chain distributors</p> <p>9 could have flagged transactions based on</p> <p>10 this expanded information set and report</p> <p>11 the results for this chain," and it keeps</p> <p>12 going on.</p> <p>13 Do you see that?</p> <p>14 A. Yes.</p> <p>15 Q. Where did you get that</p> <p>16 assignment from?</p> <p>17 A. Plaintiffs' counsel.</p> <p>18 Q. So plaintiffs' counsel asked</p> <p>19 you to do that?</p> <p>20 A. Yes.</p> <p>21 Q. Are you saying that chain</p> <p>22 distributors should have flagged these</p> <p>23 transactions, or you're just saying that</p> <p>24 it's possible that they could have?</p>
<p>1 A. Correct.</p> <p>2 Q. That would be true of each</p> <p>3 of the rows, if you will, thinking of</p> <p>4 this as an Excel, listed there, right,</p> <p>5 CVS, Discount Drug Mart --</p> <p>6 (Telephonic interruption.)</p> <p>7 BY MS. McENROE:</p> <p>8 Q. -- HBC, Giant Eagle, Rite</p> <p>9 Aid, Walgreens, and Walmart?</p> <p>10 A. Yes.</p> <p>11 Q. And that other column, what</p> <p>12 is reflected there?</p> <p>13 A. Well, the analysis is done</p> <p>14 on 12 drugs. And there's five listed</p> <p>15 there. So it would be the additional</p> <p>16 seven.</p> <p>17 Q. Did you do any work to</p> <p>18 identify or examine whether the</p> <p>19 medication reflected here was dispensed</p> <p>20 to patients pursuant to lawfully written</p> <p>21 prescriptions?</p> <p>22 A. No.</p> <p>23 Q. Not one way or the other?</p> <p>24 A. Correct.</p>	<p>1 A. I'm definitely not saying</p> <p>2 should. What I'm saying is if you make</p> <p>3 the assumption in the previous sentence</p> <p>4 that the chain distributors could see all</p> <p>5 of the distributors' shipments to each of</p> <p>6 the chain distributors' pharmacies, then</p> <p>7 you can apply the five algorithms from</p> <p>8 the previous sections to that set of</p> <p>9 transactions that include not just the</p> <p>10 chain distributors' transactions to the</p> <p>11 pharmacies.</p> <p>12 And if you did, you would</p> <p>13 flag a different set of transactions.</p> <p>14 You'd flag additional transactions.</p> <p>15 Q. So you're not suggesting</p> <p>16 that there are any particular patients</p> <p>17 for whom these chain pharmacies should</p> <p>18 have refused to fill prescriptions,</p> <p>19 correct?</p> <p>20 A. Correct.</p> <p>21 Q. And you're not suggesting in</p> <p>22 your report that at a certain point in</p> <p>23 time or because of a certain triggering</p> <p>24 transaction, any specific pharmacy should</p>

Page 202	Page 204
<p>1 have stopped dispensing a drug      2 altogether, correct?      3 A. Correct. I think that's for      4 other witnesses.      5 Q. Do you have in mind in      6 particular who you're thinking would make      7 that opinion?      8 A. No. I just mean I'm -- I'm      9 focused on the data and applying certain      10 methodologies and certain assumptions.      11 And other witnesses will -- will either      12 support or lead to a modification of      13 those assumptions. The methodologies      14 that I've laid out here are flexible      15 enough to incorporate different sets of      16 facts as they're developed for the court,      17 for the judge or for the jury.      18 Q. Well, you have five      19 approaches here. And those are the five      20 you apply, correct?      21 A. Correct.      22 Q. So if you were to apply a      23 different approach, that would require a      24 whole different set of analysis of this</p>	<p>1 Do you see that?      2 A. Yes.      3 Q. "In Section 10, I provide      4 certain estimates regarding the total      5 aggregate shipments of opioids into Ohio      6 from 1997 to 2018."      7 Do you see that?      8 A. Yes.      9 Q. Okay. So let's head to -- I      10 think it's -- Paragraph 153 on Page 82.      11 Do you see that?      12 A. Yes.      13 Q. And above that is a heading      14 called "Excessive Shipments."      15 Do you see that?      16 A. Yes.      17 Q. Now, when you discussed this      18 Section 10 at the front of your report,      19 you did not use the word "excessive" in      20 your summary of opinions in what we just      21 looked at, correct?      22 A. Correct.      23 Q. Is that word here,      24 "excessive," your word?</p>
<p>1 same data, correct?      2 A. Not a whole different set.      3 There would be a tremendous amount of      4 overlap. I can give you an example. But      5 no, it would not be a whole different      6 set. It might be just a very slight      7 modification to an assumption or two. It      8 might -- of the thousands and thousands      9 of lines of code, it might -- it might      10 involve changing one or two lines of      11 code. It's not a whole new analysis.      12 Q. But presumably it would      13 change the output, so the tables, the      14 figures, the actual numbers in them would      15 need to change?      16 A. If you applied a different      17 methodology, sure.      18 Q. Let's take a look all the      19 way back to Page 6 of your report,      20 Paragraph 21.      21 A. Yes.      22 Q. And let's see. You have a      23 line that starts three lines down. It      24 starts, "In Section 10."</p>	<p>1 A. Yes.      2 Q. Why did you use the word      3 "excessive" here?      4 A. Well, you have to read the      5 title in the context of the four or five      6 or eight pages that follow. And you can      7 see in what follows. I report the      8 shipments per capita, and then a couple      9 of baselines that the judge or a jury may      10 find helpful. And excessive is then      11 defined to just be the difference between      12 what you observe and those example      13 thresholds. The modeling allows for      14 variations in those thresholds, the two      15 thresholds are just examples that I've      16 given you. And then I've described the      17 difference between what was shipped per      18 capita and those baselines as excessive.      19 I -- I'm not -- I'm not      20 describing them as excessive in some      21 epidemiological sense, or -- or legal      22 sense. I'm just describing it relative      23 to the benchmarks that I've -- or      24 baselines that I've described.</p>

<p style="text-align: right;">Page 206</p> <p>1 Q. Okay. I mean I want to make 2 sure I understand the use of the word 3 excessive here. Do you literally mean 4 that it -- the data exceeds something, so 5 you're using the word excessive? Is that 6 what you're referring to?</p> <p>7 A. Exactly.</p> <p>8 Q. So you're not saying that 9 you think it's too much in that means of 10 excessive. You're trying to just say 11 it's above some threshold you've 12 identified?</p> <p>13 A. Correct.</p> <p>14 Q. Okay. So you're not making 15 a qualitative judgment about the 16 excessiveness in this section, you are 17 making a quantitative judgment?</p> <p>18 A. I think that's correct.</p> <p>19 Q. You are not saying in your 20 report that excessive means suspicious 21 for the purposes of suspicious order 22 monitoring, correct?</p> <p>23 A. Correct.</p> <p>24 Q. You are not saying that</p>	<p style="text-align: right;">Page 208</p> <p>1 supports my identification of 2 transactions."</p> <p>3 Did I read that correctly?</p> <p>4 A. Yes.</p> <p>5 Q. Now, I want to make sure I 6 understand what you're saying here.</p> <p>7 When you are talking about 8 the purpose of identifying transactions, 9 is that the same as flagging transactions 10 like we've discussed today?</p> <p>11 A. Yes.</p> <p>12 Q. And you are now saying that 13 means to determine which transactions 14 warrant some further due diligence.</p> <p>15 Do you see that?</p> <p>16 A. Yes.</p> <p>17 Q. And is that coming from you 18 or is that coming from plaintiffs' 19 counsel, that the flagging means that 20 those transactions warrant some further 21 due diligence?</p> <p>22 A. I'm not sure. Maybe a 23 mixture of both. But I'm -- I'm just 24 trying to provide some context. My</p>
<p style="text-align: right;">Page 207</p> <p>1 excessive means unlawful in any way, 2 correct?</p> <p>3 A. Correct.</p> <p>4 Q. Let's take a look at 5 Paragraph 160 which is later on in this 6 section, right at the end of it, on 7 Page 88.</p> <p>8 Do you see that?</p> <p>9 A. Yes.</p> <p>10 Q. And toward -- I would say a 11 little more than halfway down there's a 12 sentence that starts "the purpose."</p> <p>13 Do you see that?</p> <p>14 A. Yes.</p> <p>15 Q. "The purpose of identifying 16 transactions -- to determine which 17 transactions warrant some further due 18 diligence -- is likely to only be met by 19 flagging more transactions than those 20 which are used to fill medically 21 unnecessary prescriptions. Thus the 22 decline in opioid use in Ohio and the 23 implication that more than 70 percent of 24 opioids shipped into Ohio were excessive</p>	<p style="text-align: right;">Page 209</p> <p>1 understanding of the context. I'm not 2 suggesting that I'm a subject matter 3 expert on that issue. But I -- I'm -- 4 I'm generally aware that -- that these 5 are opioids as opposed to children's toys 6 or bitcoin. And I have a general 7 understanding of the purpose of the 8 analysis. And that's all I'm trying to 9 convey there, is my general understanding 10 of the context and how Sections 9 and 10 11 relate to one another. I'm not in those 12 couple of sentences expressing an opinion 13 about what -- what is suspicious and what 14 due diligence ought to follow in a 15 suspicious that's raised.</p> <p>16 Q. I may not go so far as 17 children's toys. But let's see, did you 18 compare your analysis of opioids to an 19 analysis of other medications over those 20 periods of time?</p> <p>21 A. No.</p> <p>22 Q. You used the phrase, in the 23 language that I had just read out, of 24 medically unnecessary prescriptions?</p>

Page 210	Page 212
<p>1        A. Yes.</p> <p>2        Q. You don't define that in</p> <p>3        your report, correct?</p> <p>4        A. Correct.</p> <p>5        Q. And you are not a medical</p> <p>6        doctor?</p> <p>7        A. Correct.</p> <p>8        Q. And do you have any basis</p> <p>9        for saying what is or is not medically</p> <p>10       unnecessary of a prescription?</p> <p>11       A. No. And I didn't mean to</p> <p>12       imply that I did.</p> <p>13       Q. Let's take a look at</p> <p>14       Paragraph 154. So we're going to go back</p> <p>15       a little bit in the same section.</p> <p>16       A. Yes.</p> <p>17       Q. And it says -- you see it,</p> <p>18       it's on Page 83?</p> <p>19       A. Yes.</p> <p>20       Q. "Figure 21, Figure 22, and</p> <p>21       Figure 23 illustrate a similar pattern.</p> <p>22       In Ohio and in Cuyahoga County and Summit</p> <p>23       County, per capita opioid MME increased</p> <p>24       from 1997 to 2010 and thereafter</p>	<p>1        data or data that could be developed on</p> <p>2        that point, I would have expertise in</p> <p>3        analyzing that data. Maybe not</p> <p>4        interpreting the data fully, but</p> <p>5        certainly, so some aspect of what you</p> <p>6        just described.</p> <p>7        Q. Sure.</p> <p>8        A. But -- but not on the</p> <p>9        interpretation of such data.</p> <p>10       Q. So how did you arrive at</p> <p>11       1997 as opposed to 1996 or 1998?</p> <p>12       A. My recollection is that the</p> <p>13       retail drug summary reports go back to</p> <p>14       1997. So it's the beginning of the data</p> <p>15       that's publicly available.</p> <p>16       Q. So there was no medical</p> <p>17       reason or reason from the medical</p> <p>18       community about why 1997 was serving as</p> <p>19       your baseline for a number of your</p> <p>20       analyses in your report?</p> <p>21       A. Correct. That's just the</p> <p>22       beginning of the ARCOS retail drug</p> <p>23       summary report data.</p> <p>24       Q. In your analysis of the</p>
<p>1        declined, so that per capita opioid MME</p> <p>2        in 2017 was 3.7 times per capita opioid</p> <p>3        MME in 1997 in Ohio."</p> <p>4        Do you see that?</p> <p>5        A. Yes.</p> <p>6        Q. Do you know what MME means?</p> <p>7        A. Yes.</p> <p>8        Q. What does it mean?</p> <p>9        A. Morphine milligram</p> <p>10       equivalent.</p> <p>11       Q. Do you have any basis to</p> <p>12       know what if any proportion of the</p> <p>13       population in Ohio had untreated pain in</p> <p>14       1997?</p> <p>15       A. No.</p> <p>16       Q. Have you done any research</p> <p>17       on that point?</p> <p>18       A. No.</p> <p>19       Q. Do you have any expertise on</p> <p>20       that point?</p> <p>21       A. Not on the epidemiological</p> <p>22       or pharmacological or medical aspects of</p> <p>23       that point. But to the extent that</p> <p>24       the -- that there is publicly available</p>	<p>1        data, did you do any comparison between</p> <p>2        what was shipped into either the state of</p> <p>3        Ohio or these specific counties in Ohio</p> <p>4        versus what was being dispensed to</p> <p>5        patients pursuant to lawfully written</p> <p>6        prescriptions in those geographies?</p> <p>7        A. No.</p> <p>8        Q. So in some instances in this</p> <p>9        section you used 19 -- I'm sorry. Strike</p> <p>10       that.</p> <p>11       In some instances in this</p> <p>12       section you used 1997 as the baseline.</p> <p>13       And then you also used what you called</p> <p>14       the 1997 to 2018 interpolated baseline,</p> <p>15       correct?</p> <p>16       A. Yes.</p> <p>17       Q. And let's look at</p> <p>18       Paragraph 155 on Page 84. And it says,</p> <p>19       "A possible upper bound on the medically</p> <p>20       necessary opioid MME per capita baseline</p> <p>21       is the per capita MME interpolated from</p> <p>22       1997 to 2018. This baseline assumes that</p> <p>23       all prescriptions of opioids in 1997 and</p> <p>24       in 2018 were medically necessary and that</p>

Page 214	Page 216
<p>1 the drivers of legitimate opioid use,      2 e.g., aging of the population evolved      3 gradually rather than discontinuously      4 over time.</p> <p>5 Plaintiffs allege that      6 opioid consumption in 2018 remained      7 excessive and was still influenced by the      8 defendants' alleged fraudulent conduct.</p> <p>9 Did I read that correctly?</p> <p>10 A. Yes.</p> <p>11 Q. Did you decide that the      12 interpolation from 1997 to 2018 was a      13 possible upper bound?</p> <p>14 A. Yes.</p> <p>15 Q. On what basis?</p> <p>16 A. Well, I observed MME per      17 capita consumption in 1997. I observed      18 it in 19 -- in 2018. And I observed the      19 dramatic increase, and then decline      20 between those two dates.</p> <p>21 And in addition to just      22 observing that dramatic increase, I      23 thought the court might be interested in      24 seeing how much of that increase was in</p>	<p>1 what you call an upper bound, correct?      2 A. A possible upper bound.      3 Q. Possible upper bound. So      4 are you of the opinion that any      5 distribution of opioids above that      6 possible upper bound was not medically      7 necessary?</p> <p>8 A. No. That's not what it      9 says.</p> <p>10 Q. Well, I'm asking you. Is      11 that your intention through what you're      12 doing here?</p> <p>13 A. No.</p> <p>14 Q. So of what consequences the      15 analysis that you're doing in this      16 section?</p> <p>17 A. Well, I think of it in two      18 parts. I think that the first part of      19 Section 10 illustrates for the court, for      20 the jury, this enormous hump in opioid      21 per capita consumption in Ohio, in      22 Cuyahoga and Summit. And if Section 10      23 ended there, that might be of service.</p> <p>24 Then, in addition, I'm</p>
<p>1 excess of -- of these two example base      2 lines, that could be varied with      3 different assumptions.</p> <p>4 I might have thought of a      5 third baseline or a fourth baseline. But      6 these are the two that I thought of. And      7 so I offer them as possible upper and      8 lower bounds. Someone could suggest      9 something different. But this is what --      10 what I thought and the rationale for it.</p> <p>11 I think you've already read      12 into the record.</p> <p>13 Q. And this came from you, not      14 from plaintiffs' counsel?</p> <p>15 A. Yes.</p> <p>16 Q. So in this paragraph, and in      17 this section, you're talking about what      18 you deem to be medically necessary at      19 certain points in time, correct?</p> <p>20 A. No. That's not what that      21 paragraph says.</p> <p>22 Q. So if I were to take the      23 interpolated line between 1997 and 2018,      24 I recognize that you're treating that as</p>	<p>1 saying is there something more that the      2 data from the retail drug summary reports      3 can tell us? And in particular, how much      4 of that tremendous hump in the      5 consumption could be thought of as in      6 excess of a reasonable baseline.</p> <p>7 And I -- I offered two      8 alternatives. Someone could say that the      9 2018 levels are still excessive or      10 someone to say that the 2018 levels      11 reflect underprescribing or just about      12 are exactly right. I'm not taking a      13 position on which of those three      14 possibilities are the case.</p> <p>15 Q. Okay.</p> <p>16 A. I'm also not even taking a      17 position on whether the drivers of      18 legitimate or medically necessary opioids      19 evolved gradually. I'm just saying if      20 you assume they evolve gradually and you      21 assume that the 2007 -- the 1997 and 2018      22 levels are about right, then this is an      23 interpolated benchmark and anything above      24 that is excessive.</p>

Page 218	Page 220
<p>1           Again, not expressing an    2 opinion on any kind of epidemiological,    3 any public health, any legal, any medical    4 issue in the case. I'm just reporting    5 out the data. And this is an    6 illustration of that.</p> <p>7           I'm reporting what the data    8 would tell us if you apply these    9 assumptions in that paragraph you just    10 read.</p> <p>11          Q. So it's fair to say that you    12 are not taking into account how many new    13 opioid formulations were approved by the    14 FDA between '97 and 2018?</p> <p>15          A. No, I don't think that's    16 true.</p> <p>17          Q. You think you are taking    18 that into account, in your interpolated    19 line you're using?</p> <p>20          A. Well, sure. To the extent    21 that the 2018 levels are about three    22 times the 1997 levels, if -- and this is    23 per capita, so we're already controlling    24 for the change in the population in Ohio</p>	<p>1 upper -- possible upper bound assumes    2 that the evolution in those conditions or    3 the acceptance of opioid use for    4 treatments evolved gradually rather than    5 discontinuously as you read.</p> <p>6           Q. And did you take that into    7 account somehow in calculating that    8 interpolated baseline from '97 to 2018?</p> <p>9           A. Yes, exactly.</p> <p>10          Q. But how? So aside from just    11 looking at the data itself, did you    12 qualitatively take into account    13 increases, if any, in cancer or other    14 pain-related diagnoses over that time?    15 Did you go out and look at studies for    16 these things or talk to experts in the    17 field about this? Did you take that into    18 account other than just crunching the    19 data numbers?</p> <p>20          A. Well, those are two    21 different questions. But the answer to    22 your last question is no.</p> <p>23          Q. The answer to the first    24 question?</p>
<p>1 and these counties. So the fact that the    2 2018 levels are so much higher than the    3 1997 levels, even after the big decline,    4 may reflect the additional approved drugs    5 or treatments that you've just mentioned.</p> <p>6           Q. Did you specifically take    7 into account whether any new opioid    8 formulations were approved by the FDA    9 between 1997 and 2018?</p> <p>10          A. Not beyond what's reflected    11 in the 2018 data.</p> <p>12          Q. Aside from ways that it    13 might be reflected in the data itself,    14 did you take into account health    15 insurance coverage for any of these drugs    16 over time?</p> <p>17          A. No.</p> <p>18          Q. Aside from how any of this    19 may be reflected in the data itself, did    20 you take into account about the growth of    21 cancer or other pain-related diseases    22 during that time?</p> <p>23          A. Yes. In addition to how it    24 would be reflected in the 2018 data, my</p>	<p>1           A. Yes.</p> <p>2           I'm sorry. The answer to    3 the first question is yes. The answer to    4 the second question is no.</p> <p>5           Q. And your answer to the first    6 question is yes because you think that's    7 reflected in the data that you used to    8 get to the 2018 point?</p> <p>9          A. No, not that only. It's    10 also the assumption that those factors    11 evolved gradually over time, and so I'm    12 interpolating between those two values,    13 the 1997 level and the 2018 level, by    14 assuming a constant percentage growth.</p> <p>15          Q. So it shakes out to be a    16 near linear growth between 1997 and 2018,    17 it looks like?</p> <p>18          A. Right. It's a constant    19 annual growth, so the line curves a    20 little bit. But yes.</p> <p>21          Q. And on what basis do you    22 make that assumption?</p> <p>23          A. That it's a useful    24 illustration of a potential baseline.</p>

Page 222	Page 224
<p>1       Q. So you had the start --    2 sorry -- strike that.    3       You had the start data point    4 in '97 and the end data point in 2018.    5 What methodology did you use to chart the    6 curve as between '97 and 2018?    7       (Telephonic interruption.)    8       THE WITNESS: Well, you're    9 probably familiar with the rule of    10 72, which says if you take a    11 percentage growth rate in    12 percentage terms and divide it    13 into 72, it gives you the number    14 of years it takes for something to    15 double. So let me give you an    16 example.    17       Let's say that the ending    18 value is twice the beginning    19 value. And you've got a 12-year    20 period. That would mean that six    21 percent compound growth over    22 12 years would cause the ending    23 value to be twice the beginning    24 value.</p>	<p>1       necessary or legitimate, and the    2 drivers of that legitimate opioid    3 use evolved gradually over time,    4 in my example a 6 percent growth    5 rate would be reasonable as    6 opposed to some discontinuous    7 change in what would be medically    8 necessary or legitimate.    9       I am not expressing an    10 opinion anywhere here about what    11 is medically necessary or    12 legitimate. I'm just trying to    13 provide some context, some    14 description of how this model    15 might be useful to the court.    16 BY MS. McENROE:    17       Q. How did you choose to apply    18 that methodology to get from 1997 to    19 2018, rather than, for example, a    20 straight line or a curve that curved in    21 the other direction? I mean, concave    22 instead of convex and vice versa. On    23 what basis?    24       A. Well, it's really just my</p>
<p>1       And so, what I did was    2 really a variant on that. I've    3 got the 2018 per capita    4 consumption. I've got the 1997    5 per capita consumption. The ratio    6 of those two raised to the    7 power -- you do this in Excel --    8 but raised to the power of one    9 divided by the number of years    10 would give you that constant    11 annual growth rate.    12       That's the calculation that    13 I did, and then used that constant    14 annual growth rate each year    15 applied to the 1997 starting value    16 and each prior year as you move    17 forward, and you end up at the    18 2018 level.    19       All I'm doing is saying, if    20 it's true, if -- I'm assuming if    21 it's true that the 1997 levels are    22 medically necessary or legitimate    23 or whatever term you want to use,    24 and the 2018 levels are medically</p>	<p>1       intuition, that these were two useful    2 examples. I could implement the    3 alternatives that you suggest. They are    4 real -- really trivially different than    5 what I did. And if I did those four,    6 there could be four more examples.    7       What I'm describing here is    8 a general methodology that might be    9 useful to the court. And I've provided    10 two illustrations, but you can -- you can    11 specify other illustrations.    12       Q. What was the basis of your    13 expertise for interpolating that line in    14 that way, for this particular setting?    15       A. Well, I have a Ph.D. in    16 economics. I have -- I have probably had    17 hundreds of semester hours of    18 arithmetic --    19       Q. Sure. So let me stop you    20 there. I -- I don't mean to quibble    21 about your computational bases for doing    22 that.    23       I'm saying from a    24 methodological standpoint, in terms of</p>

Page 226	Page 228
<p>1 picking how to get from one point to      2 another in Figure 24, which is on      3 Page 85, I think it might be the easiest      4 way for us to look at this. On what      5 basis are you doing it in this way?      6 A. I'm not being articulate. I      7 thought I had answered that a whole bunch      8 of times.      9 Q. Yeah, so let me ask the      10 question a different way, because I'm not      11 trying to say from a math standpoint how      12 you get from one line to the other. What      13 I'm trying to say is, from a healthcare,      14 from an epidemiology perspective, from a      15 pharmaceutical industry perspective, how      16 is it that you're telling the court that      17 this is the right line to be looking as      18 an upper bound?      19 A. I'm not doing that. I've      20 said that several times today. I'm not a      21 subject matter expert. I'm not offering      22 an opinion in any section of the report,      23 but including on this page in that      24 figure, based on some subject matter</p>	<p>1 referring to?      2 A. Yes. Well, that would be an      3 example of it, yes.      4 Q. Okay. And so you are not      5 suggesting that the numbers that you have      6 reflected here for an upper bound or a      7 baseline is medically necessarily the      8 appropriate line. You are giving this as      9 a frame of reference?      10 A. Yes. We might use the terms      11 a little bit differently, but they are      12 illustrations. You could imagine even      13 above or below the '97 levels or the 2018      14 levels as being legitimate or medically      15 necessary.      16 All I'm really doing is      17 saying you can get from '97 to 2018 a      18 couple of different ways. You could get      19 it between those two levels, and other      20 ways as well.      21 And however you create the      22 baseline, whatever those baseline MME per      23 capita are, you could subtract those      24 baseline amounts each year from what's</p>
<p>1 expertise. Other witnesses will be      2 offering the court that expertise.      3 I'm just saying, if the      4 expertise and the facts are developed      5 that support these assumptions, this is      6 the baseline. If -- if the facts are      7 developed in a different way, then a      8 variant on this would be developed. I'm      9 just describing the general methodology      10 and two illustration.      11 Q. Thank you. So on Page 86,      12 in Paragraph 159 that we were just      13 looking at a minute ago. There is a      14 sentence towards the bottom that says,      15 "My estimates."      16 Do you see that?      17 A. Yes.      18 Q. It says, "My estimates of      19 excessive opioid shipments into Ohio can      20 be varied to reflect how much if any of      21 the increase from 1997 to 2008 in per      22 capita MME above the 1997 levels was      23 medically justifiable."      24 Is that what you were just</p>	<p>1 actually shipped into Cuyahoga and      2 Summit, and get an excess. I'm not --      3 I'm not opining about --      4 Q. Sure.      5 A. -- what the right baseline      6 is or what the right resulting excessive      7 amount is.      8 Q. And when you say excessive,      9 again that's in the way we were talking      10 about it earlier this afternoon,      11 excessive as in being higher than      12 something, so in excess of something?      13 A. Well, as I'm using it that's      14 correct. I'm just calculating the      15 difference between two numbers and      16 calling them excessive.      17 Now, at trial, if -- if the      18 jury were to conclude that one of these      19 baselines was correct or some variant on      20 it, then the amount above that would seem      21 to me to be excessive in their judgment.      22 But that's not something that -- that I'm      23 opining on in any way. And I'm not using      24 the term that way.</p>

Page 230	Page 232
<p>1 Q. And there would need to be    2 other expert, in fact, evidence in the    3 record to be able to get to that point.    4 You can't just get there from what you    5 have in your expert reports, correct?    6 A. Absolutely.    7 Q. Okay. So let's take a look,    8 still, I'm on Page 87 now, and you have a    9 number of bullet points. And I think    10 this is technically still part of    11 Paragraph 159. And you have a number of    12 bullet points here on 87 and then the top    13 of 88 that use the word "excessive."    14 And is this all throughout    15 your report consistent with how we've    16 been discussing the use of the term    17 "excessive" here, not that you're making    18 a qualitative judgment, but that you're    19 making a quantitative observation?    20 A. Yes. I'm not using the term    21 "excessive" in -- in any -- in any sort    22 of liability sense, or sense that it    23 might be used in the argument. It's just    24 a difference in two numbers.</p>	<p>1 A. Yes.    2 Q. In final form as submitted?    3 A. Only in final form as    4 submitted.    5 Q. And when did you see    6 Dr. Cutler's report?    7 A. Sometime after March 25th.    8 Q. I gave you -- I think the    9 version I gave you has a little purple    10 flag in it?    11 A. Yes.    12 MS. McENROE: And for    13 plaintiffs' counsel's benefit,    14 it's on -- at Table J-1 in    15 Appendix 3 of Dr. Cutler's report.    16 BY MS. McENROE:    17 Q. Do you see that?    18 A. Yes.    19 Q. Does this table look    20 familiar to you?    21 A. I believe I saw this table    22 or this page sometime after my report was    23 filed.    24 Q. Did you prepare this table?</p>
<p style="text-align: center;">Page 231</p> <p>1 MS. McENROE: Can we go off    2 the record for a quick second?    3 THE VIDEOGRAPHER: Off the    4 record at 3:20 p.m.    5 (Short break.)    6 THE VIDEOGRAPHER: We are    7 back on the record at 3:23 p.m.    8 BY MS. McENROE:    9 Q. Dr. McCann, I'm going to    10 hand you what we've marked as Exhibit 6.    11 (Document marked for    12 identification as Exhibit    13 McCann-6.)    14 MS. McENROE: I have another    15 copy.    16 BY MS. McENROE:    17 Q. This is another expert    18 report submitted by plaintiffs in this    19 case on behalf of Professor David Cutler.    20 You mentioned Professor Cutler earlier    21 today, correct?    22 A. Yes.    23 Q. Have you seen this report    24 before?</p>	<p style="text-align: center;">Page 233</p> <p>1 A. No.    2 Q. Did you provide this to    3 Professor Cutler?    4 A. I didn't personally.    5 Q. Did somebody from SLCG    6 provide this to Professor Cutler?    7 A. Not to Professor Cutler. It    8 may be that a table, something like that,    9 was provided to the counsel that we were    10 interacting with. And it was provided to    11 counsel Professor Cutler was interacting    12 with. And Professor Cutler then    13 included, I don't know, but I did not and    14 my staff did not have any communication    15 with Professor Cutler.    16 Q. I looked, but I couldn't    17 find this Table J-1 in any of your expert    18 reports submitted in this case or any of    19 the appendices. Do you have any reason    20 to think that it is included in any of    21 your expert reports or any of your    22 appendices you've included?    23 A. I don't know one way or the    24 other.</p>

Page 234	Page 236
<p>1 Q. So this table could be, but  2 you don't know?  3 A. Correct.  4 Q. And on what basis are you  5 saying that?  6 A. Well, because I -- I  7 provided you with something like 5,000  8 tables. And I can't say with certainty  9 that this table, or substantially this  10 table or content that could be used to  11 easily create this table isn't anywhere  12 in any -- my report or my two  13 supplements.</p> <p>14 Q. Let's take a look --  15 A. I could do a search for that  16 if you'd like, but I just can't tell you  17 for sure one way or the other as I sit  18 here.</p> <p>19 Q. Sure. Let's take a look at  20 your supplemental expert report submitted  21 on April 3rd.</p> <p>22 A. Yes.</p> <p>23 Q. And earlier today you  24 described this to me as supplemental</p>	<p>1 report?  2 MS. McENROE: You can object  3 to form. It's memorialized on the  4 record.</p> <p>5 MR. MOUGEY: That's the  6 first thing I've said -- I mean, I  7 just -- today. I think I've  8 objected three times in --</p> <p>9 MS. McENROE: I appreciate  10 that.</p> <p>11 MR. MOUGEY: -- six hours.  12 Y'all should read your  13 transcripts. Y'all object every  14 13 seconds. So I just -- I  15 just -- I mean, it's asked and  16 answered. He said he didn't know  17 where it was.</p> <p>18 MS. McENROE: Okay. He can  19 answer now. Thank you.</p> <p>20 MR. MOUGEY: You're welcome.</p> <p>21 BY MS. McENROE:  22 Q. Go ahead.  23 A. I don't know.  24 Q. Let's take a look back to</p>
Page 235	Page 237
<p>1 tables in the body of your report.  2 Figures and tables used in depositions,  3 right?  4 A. Yes.  5 Q. You had some summary tables?  6 A. Yes.  7 Q. Does this table at J-1 in  8 Professor Cutler's report appear anywhere  9 in your first supplemental report, to  10 your knowledge?</p> <p>11 MR. MOUGEY: Asked and  12 answered.</p> <p>13 BY MS. McENROE:  14 Q. It's okay. You can answer.</p> <p>15 MR. MOUGEY: It depends on  16 how many times we ask it. I  17 haven't said much today. But, I  18 mean, he just said he didn't know.</p> <p>19 MS. McENROE: Well, I'm  20 narrowing the question a little  21 bit. That was a broad --</p> <p>22 MR. MOUGEY: If he doesn't  23 know if he was anywhere, how is he  24 going to know if it was in this</p>	<p>1 your March 25th report, in particular, to  2 Paragraphs 181, 182, and 183, which are  3 towards the end at Page 93 to 94. Let me  4 know when you're there.  5 A. I'm there.  6 Q. And this section is labeled  7 "Conclusion," correct?  8 A. Yes.  9 Q. And Paragraph 181 says,  10 "Based upon my comparison of the ARCOS  11 data produced by the DEA, the public  12 ARCOS retail drug summary reports, and  13 the defendants' transactional data, I  14 conclude that -- after correcting a  15 relatively small number of records -- the  16 ARCOS data produced by the DEA is  17 complete and reliable."  18 Did I read that correctly?  19 A. Yes.  20 Q. That's an opinion you're  21 advancing in this litigation?  22 A. Yes.  23 Q. And then Paragraph 182, "I  24 further conclude that Cardinal Health's</p>

Page 238	Page 240
<p>1 transactional" -- "transaction records    2 produced in discovery are a reliable    3 source of transactions data before 2006    4 and after 2014. More generally, with the    5 exception of AmerisourceBergen, the other    6 defendants' transaction data is also a    7 reliable source of transaction data for    8 the periods covered by its production."</p> <p>9         Did I read that correctly?</p> <p>10        A. Yes.</p> <p>11        Q. And that's an opinion that    12 you're advancing in this litigation?</p> <p>13        A. Yes.</p> <p>14        Q. Paragraph 183, "The ARCos    15 data can be used to identify transactions    16 in a state, county, zip code, or    17 individual pharmacy meeting certain    18 criteria as I have illustrated above."</p> <p>19         Did I read that correctly?</p> <p>20        A. Yes.</p> <p>21        Q. And that's an opinion that    22 you're advancing in this litigation?</p> <p>23        A. Yes.</p> <p>24        Q. Are you advancing any other</p>	<p>1 reading Paragraph 181 into the record,    2 there should be an apostrophe after    3 defendants. You read it as    4 transactional. It says transaction data.</p> <p>5         Q. Sorry about that.</p> <p>6         A. So there's little quibbles    7 like that. And there's a place where I'm    8 talking about a three-digit zip code in    9 Arizona, it's 851. And in the paragraph,    10 851 is mentioned three or four times.</p> <p>11        And one time a four gets slipped in    12 there. It's 8451 or something like that.</p> <p>13         It's obvious that there    14 should be an apostrophe there or that    15 four shouldn't have been in the    16 three-digit zip code.</p> <p>17         Similarly, there might be an    18 example here or there of something that,    19 upon reflection, I might change. But    20 they would be trivial. It would be    21 literally typos, the way the typos are    22 that I've just described to you. But    23 there's nothing material that I would    24 change in any of these reports.</p>
<p>1 opinions in this litigation?</p> <p>2         MR. MOUGEY: Objection.</p> <p>3         THE WITNESS: Well, yes, of    4 course. These are one or    5 two-sentence summaries of what in    6 the body of the report might be 20    7 or 30 pages. And so I think at a    8 very high level these summarize my    9 opinions.</p> <p>10        BY MS. McENROE:</p> <p>11        Q. Are there any other high    12 level categories of opinions that's not    13 articulated here in your conclusion    14 section in your primary report?</p> <p>15        A. Only to the extent they are    16 not otherwise discussed earlier in this    17 report or in the two supplements.</p> <p>18        Q. Is there anything, sitting    19 here today, that you'd like to correct or    20 modify in your original report or either    21 of your two supplements? Taking into    22 account the errata sheet for Page 35.</p> <p>23        A. Well, I noticed a typo here    24 or there. For instance, as you were</p>	<p>1         Q. Any -- anything come to mind    2 in particular of something that you would    3 change? And I'm not talking about    4 typographical errors.</p> <p>5         A. No.</p> <p>6         Q. Okay. Can we flip back to    7 Paragraph 22 in your primary report.</p> <p>8         In both this report and in    9 your second supplemental report, you    10 include the same language that's at    11 Paragraph 22. It's the page -- it's at    12 the top of Page 7.</p> <p>13         It says, "I continue to    14 review documents and gather information    15 and reserve the right to update my    16 analysis and opinions based upon that    17 further review of documents and based on    18 any new information -- including possibly    19 reports of other experts -- I may    20 receive."</p> <p>21         Do you see that?</p> <p>22         A. Yes.</p> <p>23         Q. Do you have a present    24 intention to supplement your report for a</p>

Page 242	Page 244
<p>1 third time?</p> <p>2 MR. MOUGHEY: Objection.</p> <p>3 THE WITNESS: Well, almost</p> <p>4 definitely, yes.</p> <p>5 BY MS. McENROE:</p> <p>6 Q. And tell me what you mean by</p> <p>7 that.</p> <p>8 A. Well, just yesterday</p> <p>9 AmerisourceBergen produced data that was</p> <p>10 supposed to be produced previously and</p> <p>11 which I called attention to in this first</p> <p>12 report.</p> <p>13 I also called attention to</p> <p>14 other defendants whose production seems</p> <p>15 to be missing months or NDC codes or even</p> <p>16 years.</p> <p>17 And to the extent what I'm</p> <p>18 trying to do here is reconcile the data,</p> <p>19 the defendants' transaction data produced</p> <p>20 in discovery with the ARCOS data and</p> <p>21 create a dataset that's reliable that the</p> <p>22 court can rely on, if the defendants --</p> <p>23 well, first, I will want to review the</p> <p>24 data that AmerisourceBergen produced</p>	<p>1 goal of ending up with a set of</p> <p>2 transaction data that the court can rely</p> <p>3 on.</p> <p>4 Q. Aside from data issues or</p> <p>5 issues identified by defendants' experts,</p> <p>6 do you have any intention to supplement</p> <p>7 your expert report again based on other</p> <p>8 of plaintiffs' expert reports?</p> <p>9 A. No.</p> <p>10 Q. Other than potentially</p> <p>11 correcting for data that's been produced</p> <p>12 only recently or potential issues</p> <p>13 identified by defendants' counsels, do</p> <p>14 you have any other substantive intention</p> <p>15 to modify or supplement your report? And</p> <p>16 what I mean by that is, for example,</p> <p>17 changing one of the five approaches</p> <p>18 you've used?</p> <p>19 A. No. Although in your</p> <p>20 question I think you have to include not</p> <p>21 only data that was only produced</p> <p>22 recently, yesterday, but additional data</p> <p>23 that might be produced by the defendants</p> <p>24 in the future.</p>
<p>1 yesterday and see if -- it's clear I was</p> <p>2 showing you a figure earlier, we were</p> <p>3 looking at, where that new data would</p> <p>4 fill in a bunch of yellow bars on that</p> <p>5 figure.</p> <p>6 It also would change some of</p> <p>7 the numbers in, for instance, Table 13</p> <p>8 and 14.</p> <p>9 So for this report to be</p> <p>10 accurate now, given the updated data that</p> <p>11 was produced after this report was</p> <p>12 produced, I'll have to make some changes</p> <p>13 to those two tables. And if other</p> <p>14 defendants produce other data, I would</p> <p>15 have to update the figures and tables to</p> <p>16 reflect that.</p> <p>17 And I understand that your</p> <p>18 experts will be filing expert reports</p> <p>19 this weekend. And if combing through</p> <p>20 tens of thousands of lines of code,</p> <p>21 someone identifies a line of code that</p> <p>22 maybe we should have written differently</p> <p>23 or inserted in a different order, I'll</p> <p>24 evaluate that, with -- entirely with the</p>	<p>1 Q. Going forward?</p> <p>2 A. Yes.</p> <p>3 Q. Okay. Is there any reason</p> <p>4 why you could not answer my questions</p> <p>5 truthfully today or any of the other</p> <p>6 defendants' questions today or tomorrow</p> <p>7 truthfully?</p> <p>8 A. No. And I'm -- I'm doing my</p> <p>9 best. If I'm understanding them, then</p> <p>10 I'm answering them truthfully.</p> <p>11 Q. I appreciate that.</p> <p>12 And you understand that you</p> <p>13 have the obligation to tell us if</p> <p>14 anything in your report is false or</p> <p>15 inaccurate?</p> <p>16 A. Absolutely.</p> <p>17 Q. Okay. And is it possible</p> <p>18 that in relying on your staff for some of</p> <p>19 the underlying work that they did, that</p> <p>20 they could have made mistakes or errors?</p> <p>21 A. Well, we're all humanly</p> <p>22 imperfect. We're certainly doing our</p> <p>23 very best to create this dataset, but it</p> <p>24 may be there would be some de minimis</p>

<p style="text-align: right;">Page 246</p> <p>1 issue that you would identify and I would 2 accept as something we could do 3 differently or a judgment that could be 4 exercised reasonably in an alternative. 5 Q. And you're saying de 6 minimus. But it's also possible they 7 could have made a big mistake 8 hypothetically, correct? 9 A. It's -- I don't believe that 10 that's the case. But I can't say with 11 100 percent certainty that that is not 12 the case. I -- I don't believe it's the 13 case. 14 Q. But it's possible which 15 would make your opinions, some of them at 16 least, could potentially be untrue and 17 you wouldn't know it? 18 A. Well, it's sort of 19 topological as you've posed it. And so I 20 can't disagree with it. But I -- I do 21 not believe that there is any material 22 error that would affect any of the 23 conclusions. At a high level, the 24 conclusions are -- seem unobjectionable</p>	<p style="text-align: right;">Page 248</p> <p>1 Q. Well, the federal court said 2 that your opinions were fraudulent 3 because they said you testified knowing 4 they were false at the time. But the 5 appellate court said it wasn't that you 6 knowingly testified that it was false, 7 and I'm not accusing you of having done 8 that, but the Fifth Circuit was that it 9 was that your staff had made a 10 significant error leading you to testify 11 inaccurately; is that correct? 12 MR. MOUGEY: Objection. 13 THE WITNESS: No, that's 14 still not a correct 15 characterization of the Fifth 16 Circuit's opinion. 17 BY MS. McENROE: 18 Q. But you know what I'm 19 talking about? 20 A. I do. Of course. I lived 21 it for a couple of years. 22 (Document marked for 23 identification as Exhibit 24 McCann-7.)</p>
<p style="text-align: right;">Page 247</p> <p>1 until at least you get to Section 9. And 2 I think that we have the same goal up 3 through Section 9, and in Section 9, all 4 I'm doing is applying methodologies to 5 the best of our ability. 6 If it turned out that those 7 methodologies are not appropriate or some 8 slight variation on those methodologies 9 is warranted, we would do that for the 10 court as well. 11 Q. And you've previously had an 12 experience where your staff made a 13 significant error in a case in which 14 you've testified, correct? 15 A. I'm not sure what you're 16 referring to. 17 Q. You're not sure, with a 18 federal court having called your opinions 19 fraudulent, you don't recall that? 20 A. Oh my gosh. 21 I recall a situation where a 22 federal court said that and an appeals 23 court said that there was no basis for 24 that.</p>	<p style="text-align: right;">Page 249</p> <p>1 BY MS. McENROE: 2 Q. So I'm going to hand you 3 what I'm marking Exhibit 7. 4 A. Thank you. 5 Q. This is the District Court 6 opinion, not the Fifth Circuit opinion. 7 But this is the District Court opinion 8 from Morgan Keegan &amp; Company versus 9 Garrett, correct? 10 A. Correct. 11 Q. And is this the case we were 12 just talking about, where the District 13 Court referred to your testimony as 14 having been fraudulent, right? 15 A. Yes. 16 Q. And if we could, you can 17 hold that aside. And can you pull out 18 the exhibit with your resumé, please. So 19 that's Appendix 1 to your March 25th 20 report. 21 A. Yes. 22 Q. And which exhibit number was 23 that for the record? 24 A. 4.</p>

Page 250	Page 252
<p>1 Q. 4. And I looked and looked, 2 and I didn't see this Morgan Keegan &amp; 3 Company case referenced in your resumé. 4 Instead what I saw was on Page 109 you 5 have a line that says, "Dr. McCann has 6 testified before more than 300 NASD, NYSE 7 and FINRA arbitrations." 8 Am I correct in that? 9 A. Correct. 10 Q. Okay. So you have in here 11 300 cases from FINRA and other 12 circumstances listed, but not fully 13 listed out one by one, including the 14 underlying opinion that led to the appeal 15 to the District Court in Texas, correct? 16 A. Correct. 17 Q. Okay. And so looking at 18 what you've disclosed with your expert 19 reports, nowhere do you identify that 20 there's an opinion that counsel could 21 then pull and look at, in which a 22 District Court judge, even if they were 23 overturned, had declared you as having 24 given fraudulent testimony, correct?</p>	<p>1 So for example, I'm talking 2 about the Freddie Mac litigation from the 3 Southern District of New York in 2012. 4 A. Yes. 5 Q. Do you recall that case? 6 A. Yes. 7 Q. In which the judge found 8 "McCann's analysis changed so many times 9 in important ways and was so internally 10 inconsistent that I found it unreliable 11 and unpersuasive." 12 Do you remember that? 13 A. Yes. 14 Q. Okay. And in that 15 litigation you issued two reports, 16 correct? 17 A. Correct. 18 Q. And in this litigation 19 you've already issued three reports and 20 you've testified you might provide more 21 in the future, correct? 22 A. Yeah, I don't think that 23 they line up the way you are implying, 24 but it is true that I filed a report and</p>
<p>1 MR. MOUGEY: Objection. 2 THE WITNESS: That's not a 3 correct characterization of this. 4 I did not testify before 5 Judge Hughes. In fact, I 6 attempted to get a day in his 7 court and it was denied. I have 8 not, in the last 15 years, 9 itemized the FINRA arbitrations I 10 testify in; I've now testified in 11 over 400. 12 So years before the Garrett 13 case, my resumé looked exactly 14 like it does now, where it would 15 say McCann has testified in 100 16 FINRA arbitrations, 200, 300. I 17 did not testify in Judge Hughes' 18 court, although I certainly tried 19 to. 20 BY MS. McENROE: 21 Q. But that's not the only 22 instance in which you've had an issue 23 with the federal court looking at your 24 opinions, correct?</p>	<p>1 two small supplements in this case. 2 MS. McENROE: I'd like to 3 take a break. 4 THE VIDEOGRAPHER: Off the 5 record at 3:43 p.m. 6 (Short break.) 7 THE VIDEOGRAPHER: We are 8 back on the record at 4:00 p.m. 9 - - - 10 EXAMINATION 11 - - - 12 BY MR. EPPICH: 13 Q. Dr. McCann, my name is Chris 14 Eppich, I represent McKesson, one of the 15 distributors in this litigation. I'll 16 have a few questions for you this 17 afternoon. I -- there have already been 18 quite a few questions. I'm going to do 19 my best not to repeat what -- what we've 20 heard already today. But I hope you'll 21 bear with me. 22 You testified earlier today 23 that you had spoken with some former DEA 24 employees?</p>

	Page 254	Page 256
1	A. Yes.	1 A. Most or all of the
2	Q. You mentioned Mr. Rafalski;	2 discussion dealt with the ARCOS data,
3	is that correct?	3 what had been produced, what additional
4	A. Yes.	4 data might be produced. I'm not sure of
5	Q. Have you ever spoken with	5 that second topic. I'm not sure if we
6	Mr. Joe Rannazzisi?	6 received all of the data that we
7	A. Yes.	7 ultimately received. The last of that
8	Q. On how many occasions?	8 data was in August of 2018. So I'm not
9	A. Just once I think.	9 recalling precisely whether this meeting
10	Q. And when was that?	10 was shortly before or shortly after.
11	A. Sometime last summer or	11 I think -- I think it was
12	fall.	12 the day of my mother's funeral, which was
13	Q. Was Mr. Rannazzisi employed	13 June 12th or 10th or the day after. I
14	by the DEA when you spoke with him?	14 returned from Canada where I grew up for
15	A. I don't think so.	15 that meeting. It was in my office.
16	Q. Was he a consultant in the	16 There were about 30 people there. I
17	case when you spoke with him?	17 wasn't -- I wasn't entirely clear on what
18	A. I don't know, but I think	18 was going on. I was dealing with other
19	so.	19 issues.
20	Q. Who else was present when	20 And I believe Mr. Rannazzisi
21	you spoke with Mr. Rannazzisi?	21 was at that meeting. I remember meeting
22	A. Oh, there were a number of	22 him at our break.
23	people, somewhere between 30 and 40	23 Q. And did he speak to the
24	people. I don't know who all they were.	24 group at this meeting?
	Page 255	Page 257
1	Q. Is this the -- are you	1 A. Not in any sort of formal
2	referring to the same meeting that you	2 way. There was an open discussion, and
3	met with the three or four other experts	3 he may have contributed a thought or two
4	as well as a number of plaintiffs'	4 to that discussion, but not -- not a
5	counsel?	5 presentation or some lengthy discourse.
6	A. No. It was a different	6 Q. So there was a meeting
7	meeting.	7 around June 12th of 2018 that you had
8	Q. Who was present at this	8 attended with some of the DEA
9	meeting with 30-some-odd people in it?	9 representatives. There was another
10	A. Well, it was primarily	10 meeting that you mentioned earlier where
11	plaintiffs' counsel and some of their	11 you met with some consultants and experts
12	consultants. I wasn't introduced to	12 involved in this case.
13	everybody, so I don't know who all was	13 Were these the only two
14	there. But generally plaintiffs' counsel	14 meetings where -- that you attended where
15	and maybe some consultants working for	15 DEA employees or former DEA employees
16	plaintiffs' counsel.	16 and/or experts were present?
17	Q. And what was the purpose of	17 A. I'm sorry, I offered you the
18	the meeting?	18 June 10th or June 12th date. I could be
19	A. I don't know. I didn't call	19 precise, because I recall the connection
20	the meeting.	20 to the service in Canada.
21	Q. Do you remember any topics	21 I could be more precise on
22	that were discussed during this meeting?	22 that date. So just allow me to say I
23	A. Yes.	23 think that's the date. And if you're
24	Q. What were those topics?	24 interested, if it's important to you I'll

Page 258	Page 260
<p>1 get you the precise date.</p> <p>2 No. But in answer to your</p> <p>3 question, no, there were -- there was at</p> <p>4 least one or two other instances where I</p> <p>5 met with former DEA employees.</p> <p>6 Q. Did you meet with a former</p> <p>7 DEA employee named Kyle Wright?</p> <p>8 A. I don't know. I don't</p> <p>9 recognize that name.</p> <p>10 Q. Mike Mapes?</p> <p>11 A. I don't recognize that name.</p> <p>12 Q. Did you meet with Stacy</p> <p>13 Harper-Avilla?</p> <p>14 A. I don't know. I don't</p> <p>15 recognize that name. I did meet -- so</p> <p>16 the DEA employs that I recognized or</p> <p>17 understood to be DEA employees are four</p> <p>18 or five men and one woman, but I don't</p> <p>19 know if that's the person that you've</p> <p>20 just identified. I don't recognize that</p> <p>21 name.</p> <p>22 Q. Did you meet with Katherine</p> <p>23 Chaney?</p> <p>24 A. Same answer. I don't</p>	<p>1 Q. Have you ever spoken with</p> <p>2 DEA employees Keith Martin?</p> <p>3 A. Not that I'm aware of.</p> <p>4 Q. How about Tom Prevoznik?</p> <p>5 A. Not that I'm aware of.</p> <p>6 Q. June Howard?</p> <p>7 A. Not that I'm aware of. Let</p> <p>8 me explain why I say I'm -- "not that I'm</p> <p>9 aware of." I was on a telephone call</p> <p>10 very earlier with -- I mentioned earlier</p> <p>11 today with two or three or four people</p> <p>12 from the DEA. I don't know how many</p> <p>13 people were on the call, but set up by</p> <p>14 the plaintiffs' attorneys to discuss data</p> <p>15 that we might be receiving. So it was</p> <p>16 back in February or March of last year.</p> <p>17 And I didn't take notes of</p> <p>18 the names of the people who were on the</p> <p>19 call. There was at least one female</p> <p>20 voice and at least one male voice that I</p> <p>21 understood to be from the DEA. I don't</p> <p>22 know what their names were.</p> <p>23 Q. Generally did all of your</p> <p>24 conversations with these former DEA</p>
<p>1 recognize that name.</p> <p>2 Q. Frank Younker?</p> <p>3 A. I think so. One of the DEA</p> <p>4 employees, former employee's name was</p> <p>5 Frank. And that may be the person that</p> <p>6 you're referring to.</p> <p>7 Q. Is the person that you're</p> <p>8 thinking of a consultant to the</p> <p>9 plaintiffs in this litigation?</p> <p>10 A. Was at the time anyway.</p> <p>11 It's a year ago now or nearly a year ago.</p> <p>12 Q. Did you meet with a former</p> <p>13 DEA employee by the name of Jim Geldhof?</p> <p>14 A. I think so. That name</p> <p>15 sounds familiar.</p> <p>16 Q. How about David Schiller?</p> <p>17 A. Maybe, although that name is</p> <p>18 not familiar to me.</p> <p>19 Q. Christine Sannerud?</p> <p>20 A. Not that I'm aware. The</p> <p>21 name is not familiar to me.</p> <p>22 Q. Lou Milione?</p> <p>23 A. I don't think I recall that</p> <p>24 name. That's not familiar to me.</p>	<p>1 employees involve ARCOS data?</p> <p>2 A. Yes.</p> <p>3 Q. And specifically in those</p> <p>4 conversations, what did they tell you</p> <p>5 about ARCOS data?</p> <p>6 A. Nothing of substance that</p> <p>7 sticks with me. Nothing that informs any</p> <p>8 of the opinions that I expressed in my</p> <p>9 reports or that we discussed earlier</p> <p>10 today.</p> <p>11 There was a lot of kind of</p> <p>12 telling war stories standing around the</p> <p>13 watercooler about the ARCOS data. I</p> <p>14 don't recall anything of substance. As I</p> <p>15 said, nothing that informs any of the</p> <p>16 opinions that I expressed.</p> <p>17 Q. Did any of the war stories</p> <p>18 include any of the defendants in this</p> <p>19 litigation?</p> <p>20 A. I don't recall.</p> <p>21 Q. Do you recall the war</p> <p>22 stories involving the distributors</p> <p>23 McKesson or Cardinal Health or</p> <p>24 AmerisourceBergen, for example?</p>

Page 262	Page 264
<p>1       A. No, I'm sorry, I don't  2 recall. What I recall was more the  3 difficulty of in the field getting quick  4 pulls on the ARCOS data and how difficult  5 the ARCOS data was to -- was for them to  6 access and produce reports from.  7       It was from very early on in  8 our accumulation of the data and  9 processing and understanding of the data.  10 And so they were in some sense  11 foreshadowing for us the data that we  12 were to receive. We end up with kind of  13 a different experience with that data  14 than they had. But they were conveying  15 their experience with the data. That's  16 what I recall.</p> <p>17     Q. And to be clear, their  18 experience with the data, or at least the  19 experiences that they were discussing  20 with you from their time in the field  21 offices, they were describing ARCOS data  22 and reports as difficult to obtain?</p> <p>23     A. Well, those were my words.  24 I don't recall a year later now, a casual</p>	<p>1 informs any of the opinions that I  2 expressed -- that I hold or express.  3       Q. Do you remember any other  4 topics that you may have discussed with  5 these former DEA employees?</p> <p>6       A. No.</p> <p>7       Q. If we could turn to  8 Exhibit 2 or 3, your report, and I'll  9 refer specifically to the March 25th  10 report. If we can turn to Page 75.</p> <p>11     A. Yes.</p> <p>12     Q. Page 75 includes Table 32.  13 And this table, if you -- if you look at  14 certain entries, there are N/As and there  15 are zeros.</p> <p>16     A. Yes.</p> <p>17     Q. What does an N/A represent?</p> <p>18     A. Well, in general it would be  19 nonapplicable as opposed to nonavailable,  20 or not applicable as opposed to not  21 available.</p> <p>22     Q. So it means --</p> <p>23     A. It's just what we were  24 referring to earlier as -- as the cage</p>
<p style="text-align: center;">Page 263</p> <p>1 conversation, the exact words that were  2 used. Just that -- that from the field  3 offices that they would request a report,  4 and that it took some time.</p> <p>5       So difficult to obtain, I  6 don't mean that there was a lot of  7 paperwork to fill out or that it took  8 months, but it wasn't instantaneous or in  9 minutes the way we can create reports  10 from this ARCOS data today given our data  11 capabilities.</p> <p>12     Q. And did they describe to you  13 or tell you when a change happened at DEA  14 where ARCOS data was more readily  15 available to them?</p> <p>16     A. Well, I think that assumes  17 facts not in evidence. I don't recall  18 them telling me that things have changed.  19 I just am describing to you what I recall  20 them conveying to me about their  21 experience and nothing that particularly  22 sticks with me. That's -- that's the  23 only part of the discussion that sticks  24 with me. And none -- none of that</p>	<p style="text-align: center;">Page 265</p> <p>1 vault rule. I've just heard that term  2 used generally.</p> <p>3       And I think if you look at  4 that footnote that is earlier here that  5 cites to a two-page document, I don't  6 think oxymorphone is one of the drugs in  7 that list, and that's why the column says  8 N/A. We could check that, but that's my  9 recollection.</p> <p>10     The other places where it's  11 N/A as opposed to zero, I just have to  12 check. I'm not certain.</p> <p>13     Q. Well, as a general rule, and  14 I -- and I didn't mean to -- to confuse  15 you or make you hone in on the fact that  16 Table 32 is about maximum daily dosage  17 unit threshold by transaction.</p> <p>18     Just generally in your  19 tables, what does N/A mean?</p> <p>20     A. Not applicable.</p> <p>21     Q. And what does a zero mean?</p> <p>22     A. Well, that we ran the  23 methodology and it didn't flag any  24 orders.</p>

<p style="text-align: right;">Page 266</p> <p>1 Q. So in your mind what's the 2 difference between an N/A and a zero? 3 A. Well, this is actually a 4 really good illustration of that. Maybe 5 at least my thinking about how those 6 terms might be used. 7 So if we look at that source 8 document that's cited in the footnote on 9 Page 72, it gives daily limits for 10 different drugs. And it does not, my 11 recollection, give a daily limit for 12 oxymorphone. It does give a limit for 13 the other drugs. And so if a distributor 14 doesn't ship a drug, then there might be 15 an N/A -- a drug for which there is a 16 daily limit in that source document. 17 There might be an N/A if they do ship 18 that drug, but never does that drug 19 exceed the daily limit, then there would 20 be a zero. That's the way I would 21 interpret those two. 22 I might -- I might go back 23 and check to see if there's some 24 situation where we wrote N/A when a zero</p>	<p style="text-align: right;">Page 268</p> <p>1 legitimate intended uses to illicit 2 activities. 3 Q. Do you agree that diversion 4 is a crime? 5 A. I have no -- no opinion -- 6 MR. MOUGEY: Objection. 7 Outside the scope. 8 THE WITNESS: -- one way or 9 the other. 10 BY MR. EPPICH: 11 Q. Are you planning to offer 12 any opinions about whether or not any of 13 the defendants diverted prescription 14 opioids in this litigation? 15 A. No. 16 Q. I'd like to turn back to 17 Page 56 of your report. Page 56 is the 18 start of Section 9, transaction analysis, 19 you'll recall. 20 I'd like to return to the -- 21 the five methodologies that you implement 22 to identify what you call flagged orders. 23 Okay? 24 A. Yes.</p>
<p style="text-align: right;">Page 267</p> <p>1 would be appropriate or where we wrote a 2 zero when an N/A would be appropriate. 3 But looking at this example 4 you've pointed me to, that would be the 5 interpretation that I would take from it. 6 Q. Now, Dr. McCann, have you 7 ever heard the term "diversion" used in 8 connection with prescription opioids? 9 A. Yes. 10 Q. What does diversion mean to 11 you? 12 A. I only have the very vaguest 13 of kind of layman's understanding of that 14 term. I don't -- I don't have an 15 understanding that would be helpful here, 16 I don't think. I'm happy to tell you 17 what it is, but I'm not sure that it's 18 helpful. 19 Q. Yeah, please. 20 A. Sure. So I would just say 21 it sounds like it's related to diverted 22 and that diversion means that some drugs, 23 some prescription drugs were diverted 24 from their intended use, or from their</p>	<p style="text-align: right;">Page 269</p> <p>1 Q. You testified earlier that 2 the plaintiffs' counsel provided these 3 five methodologies for identifying 4 flagged transactions to you, correct? 5 A. Yes. 6 Q. You didn't come up with the 7 five methodologies yourself? 8 A. No. 9 Q. You have no opinion of -- on 10 whether any of the five methodologies is 11 appropriate for evaluating whether or 12 not -- or, excuse me. Let me strike 13 that. 14 You have no opinion on 15 whether any of the five methodologies are 16 appropriate for identifying what you call 17 flagged transactions, correct? 18 A. Correct. 19 Q. There may be other 20 appropriate methodologies for -- for -- 21 let me strike that. 22 You'd agree there may be 23 other appropriate methodologies for 24 flagging suspicious orders, correct?</p>

Page 270	Page 272
<p>1       A. Yes.</p> <p>2       Q. But you have no opinion</p> <p>3 about the other methods of flagging</p> <p>4 suspicious orders, correct?</p> <p>5       A. Or even that they exist. I</p> <p>6 just allow, in your previous question,</p> <p>7 that they may exist. I don't have an</p> <p>8 opinion one way or another on -- on any</p> <p>9 of the subject matter material.</p> <p>10      Q. You used algorithms to</p> <p>11 identify the first flagged transactions</p> <p>12 in these methodologies?</p> <p>13      A. Yes.</p> <p>14      Q. And then you flagged every</p> <p>15 transaction after that, correct?</p> <p>16      A. Correct.</p> <p>17      Q. That was according to</p> <p>18 plaintiff -- plaintiffs' counsel's</p> <p>19 instruction, correct?</p> <p>20      A. Correct.</p> <p>21      Q. And you did that for all</p> <p>22 five methodologies?</p> <p>23      A. Correct.</p> <p>24      Q. You did not use your</p>	<p>1 methodologies?</p> <p>2       A. I'm sorry, what do you mean</p> <p>3 by developed?</p> <p>4       Q. Well, you wrote algorithms</p> <p>5 for each of these five methodologies,</p> <p>6 correct?</p> <p>7       A. Correct.</p> <p>8       Q. Who wrote those algorithms?</p> <p>9       A. Well, it was a joint effort</p> <p>10 of -- so at a very high level you can</p> <p>11 think of the instruction about which</p> <p>12 algorithms to use and the assumption that</p> <p>13 once a transaction is flagged, everything</p> <p>14 on that day and thereafter is flagged.</p> <p>15 You could think of that as part of</p> <p>16 developing or writing the algorithm.</p> <p>17       So plaintiffs' counsel, some</p> <p>18 discussion of that between me and -- and</p> <p>19 my staff and plaintiffs' counsel, and</p> <p>20 then the actual programming of those</p> <p>21 rules, members of my staff.</p> <p>22       Q. It's true that none of your</p> <p>23 methodologies was ever used by a</p> <p>24 distributor to identify suspicious</p>
<p>1       algorithm in the five methodologies to</p> <p>2 identify any of the subsequent</p> <p>3 transactions that you flagged after the</p> <p>4 first transaction?</p> <p>5       A. If I understand that</p> <p>6 question, is the same as the question</p> <p>7 asked earlier today. The methodologies</p> <p>8 flagged that first transaction and</p> <p>9 everything after that gets flagged. So,</p> <p>10 in some complete description, the</p> <p>11 methodology does flag those later</p> <p>12 transactions, because it flags the first</p> <p>13 one and every one that follows.</p> <p>14       But the methodology is not</p> <p>15 reapplied to each transaction anew. I --</p> <p>16 I guess is the way I would say it.</p> <p>17       Q. Another way to say that</p> <p>18 would be there's no computational</p> <p>19 analysis on any of the subsequent</p> <p>20 transactions after that first flagged</p> <p>21 transaction, correct?</p> <p>22       A. Correct.</p> <p>23       Q. Who developed your</p> <p>24 algorithms for each of these five</p>	<p>1 orders, correct?</p> <p>2       A. I don't know one way or the</p> <p>3 other.</p> <p>4       Q. And are you offering any</p> <p>5 opinions or do you plan to offer any</p> <p>6 opinions about whether or not your five</p> <p>7 methodologies were ever used by a</p> <p>8 distributor to -- to identify suspicious</p> <p>9 orders?</p> <p>10      A. No.</p> <p>11      Q. Do you have any experience</p> <p>12 with any of the distributors' suspicious</p> <p>13 order monitoring programs?</p> <p>14      A. No.</p> <p>15      Q. You didn't review any</p> <p>16 distributor testimony in this case, did</p> <p>17 you?</p> <p>18      A. No.</p> <p>19      Q. You didn't review the</p> <p>20 suspicious order monitoring programs for</p> <p>21 any distributor in this case?</p> <p>22      A. No.</p> <p>23      Q. You didn't review McKesson's</p> <p>24 Section 55 of its operations manual?</p>

Page 274	Page 276
<p>1       A. Not that I'm aware of. If      2 I -- if I did, it didn't stick with me.      3       Q. You didn't review McKesson's      4 lifestyle drug monitoring program?      5       A. Same answer.      6       Q. You didn't review McKesson's      7 controlled substance monitoring program?      8       A. No. Not that I'm aware of.      9       Q. You didn't review      10 AmerisourceBergen's suspicious order      11 monitoring programs?      12      A. No, not that I'm aware of.      13      Q. You didn't review Cardinal      14 Health's suspicious order monitoring      15 programs?      16      A. No, not that I'm aware of.      17      Q. You have no opinions about      18 McKesson's suspicious order monitoring      19 program?      20      A. Correct.      21      Q. Do you plan to offer any      22 opinions about McKesson's suspicious      23 order monitoring program?      24      A. No.</p>	<p>1       Q. Now, we talked -- we've      2 talked about the five methodologies at      3 length today. I just have a few      4 follow-up questions.      5       Which -- which of the      6 methodologies considers legitimate      7 pharmacy growth over time?      8       A. As distinct from illicit or      9 illegitimate pharmacy growth? I'm not      10 sure I -- I follow that. Take      11 "legitimate" out of the question --      12      Q. Fair enough. Let me strike      13 the question, and I'll re-ask the      14 question.      15      Which methodologies consider      16 pharmacy growth over time?      17      A. All five of them, but      18 primarily the first three.      19      Q. How does the maximum monthly      20 trailing six-month threshold consider or      21 account for pharmacy growth over time?      22      A. Well, to the extent that      23 pharmacies receipt of a drug increases      24 over time, it gets flagged under that</p>
<p>1       Q. Do you have any opinions      2 about AmerisourceBergen's suspicious      3 order monitoring program?      4       A. No.      5       Q. And do you intend to offer      6 any opinions about AmerisourceBergen's      7 suspicious order monitoring program?      8       A. No.      9       Q. Do you have any opinions      10 about Cardinal Health's suspicious order      11 monitoring program?      12      A. No.      13      Q. Do you intend to offer any      14 opinions about Cardinal Health's      15 suspicious order monitoring program?      16      A. No.      17      Q. Do you have any opinions      18 about any other distributors' suspicious      19 order monitoring programs?      20      A. No.      21      Q. Do you intend to offer any      22 opinions about any other distributors'      23 suspicious order monitoring programs?      24      A. No.</p>	<p>1       method. So it considers the growth. And      2 if the pharmacy's shipments increase, at      3 some point the shipments -- a shipment      4 and the shipments thereafter get flagged.      5       Q. Is it your opinion that a      6 flagged order, or what you call a flagged      7 order indicates the growth of the      8 pharmacy?      9       A. Well, by definition it does      10 in this section, right? Because the only      11 way an order gets flagged is if in a      12 month the pharmacy receives more drugs      13 than it received at the maximum in the      14 previous six months. And that's growth,      15 right? That's a higher number in the      16 seventh month than in the previous six      17 months.      18      Q. What are some reasons why a      19 pharmacy may grow over time?      20      MR. MOUGEY: Outside the      21 scope. Objection.      22      THE WITNESS: I don't know.      23 I haven't thought through those      24 issues.</p>

<p style="text-align: right;">Page 278</p> <p>1 BY MR. EPPICH:</p> <p>2 Q. Now, you say that your 3 methodology flags orders, correct?</p> <p>4 A. Yes.</p> <p>5 Q. If the distributors had 6 refused to ship each of your flagged 7 orders, would any legitimate 8 prescriptions have gone unfilled?</p> <p>9 MR. MOUGHEY: Objection.</p> <p>10 THE WITNESS: I don't know.</p> <p>11 BY MR. EPPICH:</p> <p>12 Q. Are you planning to offer 13 any opinions in this case as to whether 14 or not distributors' refusal to ship 15 would result in any legitimate 16 prescriptions having gone unfilled?</p> <p>17 MR. MOUGHEY: Objection.</p> <p>18 THE WITNESS: Not as I sit 19 here.</p> <p>20 BY MR. EPPICH:</p> <p>21 Q. Now, if the distributors had 22 refused to ship each of your flagged 23 orders, would that have prevented the 24 opioid crisis?</p>	<p style="text-align: right;">Page 280</p> <p>1 registrants are required to submit ARCOS 2 data to the DEA on a monthly or quarterly 3 basis?</p> <p>4 MR. MOUGHEY: Objection.</p> <p>5 THE WITNESS: That's my 6 general understanding. I don't 7 have an expert opinion or expert 8 understanding. But in context, as 9 part of the context, I have, when 10 analyzing the data, that's my 11 understanding.</p> <p>12 BY MR. EPPICH:</p> <p>13 Q. And based on your review of 14 this ARCOS data, would you agree that 15 registrants have submitted accurate data 16 to DEA?</p> <p>17 A. I would say it a little bit 18 differently, but something very close to 19 that.</p> <p>20 Q. How would you say it?</p> <p>21 A. Well, what I see is not 22 necessarily exactly what registrants 23 submit to the DEA.</p> <p>24 What I see is what the DEA</p>
<p style="text-align: right;">Page 279</p> <p>1 MR. MOUGHEY: Objection.</p> <p>2 THE WITNESS: I have no 3 idea. No opinion one way or the 4 other.</p> <p>5 BY MR. EPPICH:</p> <p>6 Q. And do you plan to offer any 7 opinions about whether or not 8 distributors play a role or played a role 9 in causing or preventing the opioid 10 crisis?</p> <p>11 MR. MOUGHEY: Objection.</p> <p>12 THE WITNESS: No. As with a 13 lot of this stuff, that's going to 14 be the subject of other experts' 15 reports and testimony.</p> <p>16 BY MR. EPPICH:</p> <p>17 Q. Now, you used ARCOS data for 18 your methodologies, correct?</p> <p>19 MR. MOUGHEY: Objection.</p> <p>20 THE WITNESS: Along with 21 other data. But, yes, I used 22 ARCOS data.</p> <p>23 BY MR. EPPICH:</p> <p>24 Q. And you understand that</p>	<p style="text-align: right;">Page 281</p> <p>1 produced to me. And so I want to make 2 that slight qualification.</p> <p>3 And an example of that would 4 be, there's 20 or 21 days where I think 5 for Ohio there are no Cardinal Health 6 transactions in ARCOS. I may have the 7 jurisdictions slightly off. But there's 8 a period there where there are a bunch of 9 Cardinal Health transactions that were 10 produced in discovery in this case, to 11 pharmacies over a 20 or 21-day period 12 that is not in the ARCOS data produced to 13 me by the DEA.</p> <p>14 And so I can't say that that 15 data was produced by Cardinal Health to 16 the DEA and they just didn't produce it 17 to me, or in the alternative, that 18 Cardinal Health didn't produce those 19 21 days of transactions to the DEA.</p> <p>20 Setting aside an issue like 21 that, what I would say is that the data 22 that I received from the DEA as ARCOS 23 data is consistent after fixing a few 24 things, largely consistent with the data</p>

Page 282	Page 284
<p>1 that the defendants produced in this case  2 in discovery. It's a little bit  3 different than what you said, but it's  4 close.</p> <p>5 Q. So to restate, you'd agree  6 that the ARCOS data that the DEA provided  7 to you was accurate?</p> <p>8 A. That's certainly how I  9 shorthanded in a sentence or two a couple  10 of times in the report. But if you read  11 the entire report what I'm saying is that  12 the ARCOS data that I received after  13 making some corrections on allowing for  14 some periods where they don't match  15 perfectly, match the defendant  16 transaction data produced in discovery  17 quite closely.</p> <p>18 Q. You're aware that only the  19 DEA has access to ARCOS data?</p> <p>20 A. I don't know if that's true.  21 I don't know one way or another.</p> <p>22 Q. Are you aware that  23 distributors could not see the ARCOS data  24 of any other distributor?</p>	<p>1 applied and the results of applying those  2 methodologies to the ARCOS data for  3 Cuyahoga and Summit, supplemented with  4 the defendants' transaction data  5 produced.</p> <p>6 I'm not sure what -- I don't  7 understand the applicability of the  8 Controlled Substances Act or the  9 regulations they're under to the  10 calculations that I've done. So I don't  11 know if it's consistent or not  12 consistent. I don't see the connection  13 between them.</p> <p>14 Q. And do you intend to offer  15 any opinions in this case about whether  16 or not your methodologies comply with the  17 Controlled Substances Act or its  18 regulations?</p> <p>19 MR. MOUGEY: Objection.</p> <p>20 THE WITNESS: Not as I sit  21 here. I don't see the connection,  22 as I just said.</p> <p>23 BY MR. EPPICH:</p> <p>24 Q. If we can look at Page 56 of</p>
<p>1 A. I don't know if that's true.  2 I don't know one way or the other.</p> <p>3 Q. Do you plan on offering any  4 opinions about whether or not a  5 distributor has access to ARCOS data?</p> <p>6 MR. MOUGEY: Objection.</p> <p>7 THE WITNESS: Not other than  8 to their own data, I don't have an  9 opinion one way or the other.</p> <p>10 BY MR. EPPICH:</p> <p>11 Q. Do your methodologies comply  12 with the Controlled Substance Act and the  13 applicable DEA regulations?</p> <p>14 A. I'm not familiar with the  15 details of the Controlled Substance Act  16 or the applicable regulations. But there  17 seems to be a disconnect between whatever  18 is in those documents and what I've  19 described here as my methodologies.</p> <p>20 Q. What is that disconnect?</p> <p>21 A. Well, by a disconnect, I  22 mean in layman's terms they are kind of  23 apples and oranges. I've described in  24 the reports the methodologies that I</p>	<p>1 your report, sir, at Paragraph 132. This  2 has been the subject of some questioning  3 earlier today.</p> <p>4 And I'm referring to the  5 assumption that is stated in  6 Paragraph 132, where you write, "In this  7 approach" -- and I think we've  8 established that Paragraph 132 is  9 applying to all five methodologies.</p> <p>10 "In" -- "in this approach  11 and the others implemented below, I have  12 been asked by counsel to assume that the  13 distributor did not effectively  14 investigate the flagged transactions, and  15 so every subsequent transaction of that  16 drug code is also flagged because the  17 distributor had an unfulfilled obligation  18 to detect and investigate the first  19 flagged transaction."</p> <p>20 Did I read that correctly?</p> <p>21 A. Yes.</p> <p>22 Q. What did you do to evaluate  23 the validity of this assumption?</p> <p>24 A. Nothing. It was just an</p>
Page 283	Page 285

Page 286	Page 288
<p>1 assumption that I was asked to make. And  2 I implemented it.  3 There -- if the evidence  4 were to be developed in some other way,  5 the methodology could be applied to some  6 variant on this assumption. But this was  7 the assumption that I was asked to make  8 based on -- on what I understand other  9 witnesses may testify about. And  10 ultimately whatever the court decides on  11 this issue could be -- could inform the  12 application of this tool to create a  13 different set of flagged transactions  14 from the same underlying data.</p> <p>15 Q. So you didn't review any  16 documents or deposition testimony or  17 any -- any other evidence in this case  18 to -- to validate the assumption?</p> <p>19 A. Correct.</p> <p>20 Q. You have no knowledge about  21 whether distributors had an unfulfilled  22 obligation to detect and investigate the  23 first flagged transaction?</p> <p>24 MR. MOUGEY: Objection.</p>	<p>1 BY MR. EPPICH:  2 Q. Are you planning to offer  3 any opinions about any distributor  4 obligation to detect and investigate what  5 you call the first flagged transaction?  6 MR. MOUGEY: Objection.  7 THE WITNESS: No. That will  8 be for other witnesses.</p> <p>9 BY MR. EPPICH:  10 Q. Now, if a distributor did,  11 in fact, detect and investigate the first  12 flagged transaction, your methodology  13 would incorrectly flag every subsequent  14 transaction for that base code and  15 pharmacy, wouldn't it?  16 MR. MOUGEY: Objection.  17 THE WITNESS: I would say it  18 differently.  19 I would say that I was asked  20 to assume that there was not  21 effective due diligence, or  22 rather, that when one of these  23 algorithms flags a transaction to  24 a pharmacy, the subsequent</p>
<p>1 THE WITNESS: Right, I  2 said -- as I said, I think that's  3 outside the scope of the analysis  4 that I was asked to do. And I  5 wouldn't have particular subject  6 matter expertise that would be  7 relevant in any case.</p> <p>8 All I was asked to do was to  9 assume that after a transaction  10 gets flagged, the subsequent  11 transactions are also flagged.</p> <p>12 BY MR. EPPICH:  13 Q. It's true that you don't  14 even know if distributors have an  15 obligation to detect and investigate the  16 first flagged transaction, correct?</p> <p>17 MR. MOUGEY: Objection.</p> <p>18 THE WITNESS: As a result of  19 understanding the context of this  20 litigation, I have sort of a  21 general layman's understanding,  22 but I don't have an expert  23 understanding or an expert opinion  24 on the subject.</p>	<p>1 transactions should also be  2 flagged.  3 If the evidence were to be  4 developed that during some time  5 periods that's a reasonable  6 assumption and in other time  7 periods it's not, or it's a  8 reasonable assumption for some  9 pharmacies and not others, or for  10 some distributors and not others,  11 or some other variation on this  12 assumption, then those alternative  13 assumptions could be implemented  14 in the algorithm that I've  15 developed here on the data that  16 we've cleaned and processed.  17 I've given you an  18 illustration of one set of  19 assumptions, one fact pattern if  20 you will. If -- if an alternative  21 fact pattern is developed and a  22 jury is convinced of that  23 alternative fact pattern, then the  24 analysis would be different. It</p>

Page 290	Page 292
<p>1 would be the same general 2 methodology, but the results would 3 be different because it would -- 4 it would be based on a different 5 set of assumptions.</p> <p>6 BY MR. EPPICH:</p> <p>7 Q. So under this different set 8 of assumptions where a distributor 9 detects and investigates the first 10 flagged order, you'd agree that the 11 results would be different and the 12 methodology that we see in this report 13 would be incorrectly flagging every 14 subsequent transaction?</p> <p>15 MR. MOUGHEY: Objection.</p> <p>16 THE WITNESS: No. I would 17 not say it that way. I apologize 18 for being wordy.</p> <p>19 But the way I would say it 20 is that -- that if the -- take a 21 situation where there's a 22 particular order that is the first 23 flagged order in this application 24 for a particular distributor and</p>	<p>1 report?</p> <p>2 A. I apologize, yes. If the 3 facts were to be developed to the jury's 4 satisfaction, to the court's 5 satisfaction, different from the assumed 6 facts in this illustration, then the 7 algorithms would have to be run under 8 that new set of assumed facts and it 9 would generate different results.</p> <p>10 Q. Now, I believe you testified 11 earlier today that you ran some of the 12 data without the plaintiffs' assumption. 13 Did I understand that testimony 14 correctly?</p> <p>15 A. Yes.</p> <p>16 Q. That was in preparing for 17 this report?</p> <p>18 A. No. That was earlier than 19 that.</p> <p>20 Q. But that -- that analysis is 21 not found in your report, correct?</p> <p>22 A. Correct.</p> <p>23 Q. Now, when -- when you did 24 that, what were the results that you saw?</p>
<p>1 pharmacy. And the evidence was 2 developed that that order was 3 investigated, cleared and shipped, 4 then the methodology would just be 5 applied allowing for that 6 transaction. And -- so it's the 7 same methodology.</p> <p>8 I'm not -- I'm not seeing -- 9 maybe I'm -- I apologize. I may 10 not be seeing the distinction 11 between this question and the 12 answer I gave to the prior 13 question.</p> <p>14 BY MR. EPPICH:</p> <p>15 Q. And I apologize if I'm 16 confusing you. And let me try and 17 simplify the question.</p> <p>18 If a distributor were to 19 detect and investigate the first flagged 20 order and your methodology applied that 21 assumption, you'd agree with me that the 22 results of the flagged subsequent 23 transactions would be different than what 24 we see in the charts and graphs of your</p>	<p>1 A. Well, as I said earlier, you 2 end up with fewer transactions being 3 flagged for sort of obvious reasons.</p> <p>4 Q. So you'd agree that your 5 reliance on plaintiffs' counsel 6 assumption to flag every subsequent 7 transaction increased the number of 8 flagged transactions?</p> <p>9 MR. MOUGHEY: Objection.</p> <p>10 Asked and answered.</p> <p>11 Are we -- are we going to -- 12 are we going to go through the 13 same questions we did this 14 morning? I mean, that's -- that's 15 the third time he's answered that 16 question.</p> <p>17 MR. EPPICH: I'm doing my 18 best but I --</p> <p>19 MR. MOUGHEY: I hear you, but 20 when we -- I'm --</p> <p>21 MR. EPPICH: Keep your 22 objection as to form.</p> <p>23 MR. MOUGHEY: I mean, the 24 fact that we are allowing</p>

Page 294	Page 296
<p>1 different counsel to ask questions  2 doesn't mean we're going to sit  3 and ask the same questions. I  4 mean, some of these questions are  5 almost verbatim of what we went  6 through this morning fishing for a  7 different answer.</p> <p>8 MR. EPPICH: I disagree with  9 that, sir.</p> <p>10 MR. MOUGEY: I mean, I can  11 almost cut and paste these and put  12 them on top.</p> <p>13 And I think if y'all haven't  14 coordinated who is going to take  15 what topics, I think we need to  16 make sure we do that for tomorrow.  17 Because these questions are almost  18 verbatim to what we went through  19 this morning. I could answer  20 them.</p> <p>21 BY MR. EPPICH:</p> <p>22 Q. Sir, you may answer the  23 question.</p> <p>24 A. If you assume 100 percent</p>	<p>1 the pharmacy to exceed 10,000."  2 Did I read that correctly?  3 A. Yes.  4 Q. So if the pharmacy ordered  5 10,500 in August of 1997, that order  6 would be flagged under your six-month  7 threshold analysis, correct?  8 MR. MOUGEY: Objection.  9 Asked and answered.</p> <p>10 THE WITNESS: I'm sorry.  11 Which order?</p> <p>12 BY MR. EPPICH:</p> <p>13 Q. If the pharmacy were to  14 order 10,500 in August of, say, 1997,  15 that order would be flagged under your  16 six-month threshold analysis, correct?  17 A. I think there's some  18 confusion in that question. Maybe my  19 sentence there is not clear. I could  20 explain if you'd like.</p> <p>21 Q. Well, I'm just trying to  22 figure out if the pharmacy ordered 10,500  23 in August, wouldn't that order be  24 flagged?</p>
<p>1 due diligence, you don't flag very many  2 orders. If you assume zero due  3 diligence, you flag more orders. And  4 this model is flexible enough to  5 incorporate different sets of facts  6 developed about the extent of due  7 diligence between zero and 100 percent.</p> <p>8 Q. If we could turn to  9 Paragraph 131 of your report which is on  10 Page 56. This is the first paragraph  11 under the maximum monthly trailing  12 six-month threshold.</p> <p>13 A. Yes.</p> <p>14 Q. In Paragraph 131 of your  15 report, you provide an example. You say,  16 "If the number of dosage units containing  17 hydrocodone shipped from a distributor to  18 a pharmacy in February, March, April,  19 May, June, and July were 5,000, 10,000,  20 7,000, 8,000, 9,000, and 9,500  21 respectively, a requested transaction in  22 August would be flagged if it would cause  23 the number of dosage units containing  24 hydrocodone the distributor shipped to</p>	<p>1 A. No. I'm sorry. You're not  2 saying it correctly. Can I explain?  3 Q. Yes, please.  4 A. So it's not an order of  5 10,500. It's probably a weekly order of  6 2,000, 3,000, 2,000, 4,000, 1,500. And  7 it's the last order that puts you above  8 10,000. And it's that order, it's the  9 order that puts you above 10,000. So you  10 keep saying the order of 10,500. It's  11 not an order of 10,500 typically.  12 And it's that order or the  13 orders that day in that drug code and the  14 subsequent orders in that drug code that  15 get flagged.</p> <p>16 Q. I appreciate that  17 clarification.</p> <p>18 So if the pharmacy, if their  19 total orders for the month of August 1997  20 were 10,500 by the end of the month, the  21 last order that they had would be flagged  22 under your six-month threshold analysis,  23 correct?</p> <p>24 A. In my example. But it may</p>
	Page 297

Page 298	Page 300
<p>1 not be the last order that triggers the      2 flag, right. It could be the      3 second-to-last order. But whatever the      4 orders are on that day in that drug code      5 and the rest of the orders that month,      6 and the orders that follow, are what get      7 flagged.</p> <p>8 Q. That's right. And so every      9 order of the drug thereafter would be      10 flagged for this particular pharmacy,      11 correct?</p> <p>12 A. Correct.</p> <p>13 Q. So orders starting in      14 September '97 or maybe even later in      15 August 1997 until all the way to the end,      16 let's say, 2018, those would all be      17 flagged under your six-month threshold      18 analysis, correct?</p> <p>19 A. Correct.</p> <p>20 Q. Even if no subsequent      21 monthly orders totaled 10,000, correct?</p> <p>22 A. Correct.</p> <p>23 Q. Now, let's say the      24 pharmacy -- let's say their orders for</p>	<p>1 cumulative orders so far that month to      2 exceed \$10,000 -- 10,000 dosage units,      3 that's correct. Then that order -- it      4 might be just 200 dosage units, you know,      5 taking you from 9,900 to 10,100. So that      6 200-dosage-unit order and all subsequent      7 orders get flagged.</p> <p>8 Q. Even though that store      9 ordered in excess of the limit of its      10 previous six-month ordering because of an      11 emergency?</p> <p>12 A. Correct, the application of      13 the algorithm to the data doesn't take      14 into account that or other hypotheticals      15 that you could develop that would go      16 either -- either way.</p> <p>17 Q. Assuming that the store      18 ordered that same drug every month      19 between, say, September 1997 and the end      20 of 2018, your six-month threshold      21 analysis would flag all of those orders      22 as suspicious just because of that one      23 month in 1997, correct?</p> <p>24 A. I don't think I used the</p>
<p style="text-align: center;">Page 299</p> <p>1 the month of August 1997 exceeded 10,000      2 because there was an emergency, let's say      3 a natural disaster. That last order in      4 August would be flagged and every      5 subsequent order would be flagged under      6 your six-month threshold, correct?</p> <p>7 MR. MOUGEY: Objection.</p> <p>8 THE WITNESS: I'm sorry.      9 I'm not sure that I understood      10 that question. Could you ask it      11 again, please.</p> <p>12 BY MR. EPPICH:</p> <p>13 Q. Of course. If a pharmacy --      14 if an order in August of 1997 -- let me      15 strike that.</p> <p>16 If a pharmacy ordered a      17 total number of orders that exceeded      18 10,000 in August of 1997 because there      19 was an emergency, let's say a natural      20 disaster, that order that exceeded 10,000      21 would be flagged under your six-month      22 threshold analysis, correct?</p> <p>23 A. If the order itself doesn't      24 exceed 10,000, but the order causes the</p>	<p style="text-align: center;">Page 301</p> <p>1 word "suspicious" anywhere in this      2 report. I just said that the order is      3 flagged.</p> <p>4 And that's correct, the      5 algorithm is flagging the transactions      6 after that example transaction in your      7 hypothetical until the end of the data.      8 It's as equally likely to go the other      9 way as the way you are suggesting. But      10 the algorithm is agnostic about that.      11 It's just applying the rule to the data.</p> <p>12 Q. I don't understand what      13 you -- what you're saying. It's equally      14 as likely to go the other way? Are you      15 saying that once an order is flagged, all      16 subsequent orders are not flagged?</p> <p>17 A. No, no. Not at all. In      18 your example, the natural disaster occurs      19 in the seventh month. If it occurs in      20 the fifth month, then you've got a spike      21 in the -- temporary spike in the      22 shipments in the fifth month, and that      23 raises the threshold that would be      24 applied to judge all of the subsequent</p>

Page 302	Page 304
<p>1 months.</p> <p>2 So because of the natural</p> <p>3 disaster, a bunch of orders that</p> <p>4 otherwise would be flagged are not</p> <p>5 getting flagged in your example because</p> <p>6 of the natural disaster occurring in the</p> <p>7 seventh month instead of the fifth month.</p> <p>8 You're suggesting that a bunch of orders</p> <p>9 get flagged that wouldn't otherwise get</p> <p>10 flagged.</p> <p>11 What I'm saying is, in your</p> <p>12 hypothetical it could go the other way.</p> <p>13 It could go exactly the opposite. And</p> <p>14 I'm not -- I'm not expressing an opinion</p> <p>15 other than the two that I've tried --</p> <p>16 high-level opinions that I've tried to</p> <p>17 offer, which is that you can clean up a</p> <p>18 dataset and make it useful. And you can</p> <p>19 apply algorithms, some of which I've</p> <p>20 illustrated here, to that cleaned-up</p> <p>21 data.</p> <p>22 Q. But in your maximum monthly</p> <p>23 trailing six-month threshold analysis, an</p> <p>24 order can be flagged and the order was</p>	<p>1 as I sit here, yes.</p> <p>2 Q. On Page 68 you introduce the</p> <p>3 maximum 8,000 dosage unit monthly</p> <p>4 methodology?</p> <p>5 A. Yes.</p> <p>6 Q. Are you aware of any</p> <p>7 distributor that has ever used your 8,000</p> <p>8 dosage units analysis to identify</p> <p>9 suspicious orders?</p> <p>10 MR. MOUGEY: Objection.</p> <p>11 THE WITNESS: That's more</p> <p>12 than I'm aware of. I have heard</p> <p>13 the 8,000 -- maximum 8,000 monthly</p> <p>14 units sometimes referred to in</p> <p>15 shorthand as the McKesson rule.</p> <p>16 But I don't know that that is a</p> <p>17 rule that was actually applied if</p> <p>18 by McKesson or anybody else.</p> <p>19 I hear that rule or that</p> <p>20 approach being described as the</p> <p>21 McKesson 8,000 rule. I don't know</p> <p>22 the origin of that</p> <p>23 characterization.</p> <p>24 BY MR. EPPICH:</p>
<p>1 placed because of a natural emergency, or</p> <p>2 perhaps it was diversion, or perhaps it</p> <p>3 was because of a new doctor moving in</p> <p>4 down the street. Your methodology</p> <p>5 doesn't account for any of those changes;</p> <p>6 isn't that correct?</p> <p>7 A. I'd say it a little bit</p> <p>8 differently, but yes.</p> <p>9 Q. Now, we talked earlier about</p> <p>10 your twice trailing 12-month average</p> <p>11 pharmacy dosage units methodology and</p> <p>12 your three times 12-month threshold</p> <p>13 analysis. Do you remember that</p> <p>14 discussion?</p> <p>15 A. Yes.</p> <p>16 Q. Now, your twice 12-month</p> <p>17 threshold analysis and your three times</p> <p>18 12-month threshold analysis are the same,</p> <p>19 just with a different multiplier; is that</p> <p>20 correct?</p> <p>21 A. Yes.</p> <p>22 Q. The only difference is the</p> <p>23 amount of the multiplier?</p> <p>24 A. That's all I could think of</p>	<p>1 Q. Do you have any</p> <p>2 understanding about -- let me strike</p> <p>3 that.</p> <p>4 As you sit here today, you</p> <p>5 have no knowledge about the origin of the</p> <p>6 McKesson -- of -- let me strike that.</p> <p>7 And sitting here today, you</p> <p>8 have no opinion that this methodology was</p> <p>9 used or not used by McKesson?</p> <p>10 A. Correct.</p> <p>11 Q. Do you intend to offer any</p> <p>12 opinions in this case as to whether or</p> <p>13 not McKesson did or did not use this</p> <p>14 methodology in practice?</p> <p>15 A. No.</p> <p>16 Q. Dr. McCann, you are not a</p> <p>17 pharmacist, are you?</p> <p>18 A. No, I'm not.</p> <p>19 Q. You have no training in</p> <p>20 pharmacy science?</p> <p>21 MR. MOUGEY: We'll stipulate</p> <p>22 he's not a pharmacist. He's not a</p> <p>23 doctor --</p> <p>24 MR. EPPICH: Sir, I'm not</p>

Page 306	Page 308
<p>1 asking for your stipulation.</p> <p>2 MR. MOUGHEY: Well, we</p> <p>3 don't -- we went through this. Do</p> <p>4 you not remember this this</p> <p>5 morning?</p> <p>6 MR. EPPICH: I would just</p> <p>7 like the -- the witness to answer</p> <p>8 the question.</p> <p>9 MR. MOUGHEY: Do you remember</p> <p>10 the answers to the questions this</p> <p>11 morning about whether or not he's</p> <p>12 a pharmacist?</p> <p>13 MR. EPPICH: I think you</p> <p>14 spend more time arguing for an</p> <p>15 objection --</p> <p>16 MR. MOUGHEY: I promise you,</p> <p>17 I haven't.</p> <p>18 MR. EPPICH: -- than -- than</p> <p>19 he would just answering the</p> <p>20 question.</p> <p>21 MR. MOUGHEY: You really</p> <p>22 don't remember this this morning,</p> <p>23 are you a pharmacist, are you a</p> <p>24 doctor? You don't remember that?</p>	<p>1 Q. Dr. McCann, you are aware</p> <p>2 that pharmacists fill legitimate</p> <p>3 prescriptions filled by legitimate</p> <p>4 medical professionals?</p> <p>5 A. Yes.</p> <p>6 Q. And you are aware that</p> <p>7 pharmacists stock their pharmacies by</p> <p>8 placing orders with distributors?</p> <p>9 A. Yes.</p> <p>10 Q. I'd like to talk about your</p> <p>11 excessive shipments analysis on Page 82</p> <p>12 of your report.</p> <p>13 You testified earlier that</p> <p>14 you are not aware the DEA established</p> <p>15 quotas for controlled substances every</p> <p>16 year; is that correct?</p> <p>17 A. Correct.</p> <p>18 Q. Do you know that the DEA</p> <p>19 sets these annual production quotas for</p> <p>20 controlled substances based on the</p> <p>21 estimated medical, scientific research</p> <p>22 and industrial needs of the United</p> <p>23 States?</p> <p>24 A. No.</p>
<p style="text-align: center;">Page 307</p> <p>1 MR. EPPICH: Are you -- are</p> <p>2 you instructing him not to answer</p> <p>3 these questions?</p> <p>4 MR. MOUGHEY: I mean I'm</p> <p>5 really not, but can we please be,</p> <p>6 I mean, just a little careful</p> <p>7 about, I mean, coordinating this</p> <p>8 to some extent?</p> <p>9 Can this --</p> <p>10 MR. EPPICH: Let me start</p> <p>11 this whole -- let me start this</p> <p>12 again, sir.</p> <p>13 MR. MOUGHEY: Yeah, I mean,</p> <p>14 you do what you feel is necessary.</p> <p>15 Are you a pharmacist? I</p> <p>16 mean, come on. I mean, really.</p> <p>17 MR. EPPICH: I'm</p> <p>18 just sitting -- I'm waiting for</p> <p>19 you to finish.</p> <p>20 MR. MOUGHEY: Well, good.</p> <p>21 I'm waiting for you to come up</p> <p>22 with a question that we haven't</p> <p>23 done yet.</p> <p>24 BY MR. EPPICH:</p>	<p style="text-align: center;">Page 309</p> <p>1 MR. MOUGHEY: Objection.</p> <p>2 Asked and answered.</p> <p>3 BY MR. EPPICH:</p> <p>4 Q. You didn't consider DEA's</p> <p>5 quotas in setting your baselines that</p> <p>6 are -- are found in your excessive</p> <p>7 shipments methodology?</p> <p>8 MR. MOUGHEY: Objection.</p> <p>9 Asked and answered.</p> <p>10 THE WITNESS: Correct.</p> <p>11 BY MR. EPPICH:</p> <p>12 Q. Now, you know that the quota</p> <p>13 levels for opioids have consistently</p> <p>14 increased since 1997, don't you?</p> <p>15 A. I just told you I'm not</p> <p>16 aware of the quotas and I didn't include</p> <p>17 them in my analysis. So I don't know how</p> <p>18 to answer that question.</p> <p>19 Q. Well, you'd agree that a</p> <p>20 baseline rooted in sound scientific</p> <p>21 principles would include something as</p> <p>22 significant as the DEA consistently</p> <p>23 increasing the quota?</p> <p>24 MR. MOUGHEY: Objection.</p>

Page 310	Page 312
<p>1        THE WITNESS: It may or it 2        may not. I'm not a subject matter 3        expert.</p> <p>4 BY MR. EPPICH:</p> <p>5        Q. It's not something you 6        considered?</p> <p>7        A. That's correct. I said that 8        a couple minutes ago.</p> <p>9        Q. And do you plan to offer any 10       opinions or revise your excessive 11       shipments analysis to include or account 12       for the quotas set by the DEA?</p> <p>13       A. Not beyond the extent to 14       which those quotas are already impacting 15       the 2018 levels, no.</p> <p>16       Q. But sitting here today, you 17       don't know whether or not the baseline 18       you have for 2018 is impacted by quota?</p> <p>19       A. I haven't thought through 20       that issue. But as you've suggested it 21       to me, I would just have to think through 22       it some more. But I'm not offering in 23       any case any subject matter opinion.</p> <p>24       I'm just saying that --</p>	<p>1        A. Section 10 doesn't deal with 2        individual shipments from distributors to 3        pharmacies. It's at a higher, more macro 4        level, describing the shipments into 5        Ohio, and into Cuyahoga and Summit, and 6        how those exceed the two example 7        baselines that I created.</p> <p>8        Q. Yes. And earlier you -- you 9        explained what the -- what you meant by 10       excessive shipments. And so I'm asking 11       you, of these excessive shipments, which 12       of them should distributors have not 13       shipped to pharmacies?</p> <p>14       A. I don't have an opinion one 15       way or another beyond what's expressed in 16       Section 10 on that topic.</p> <p>17       Q. Were any of what you 18       called -- call excessive shipments 19       diverted?</p> <p>20       A. I don't know.</p> <p>21       Q. You can't point to any of 22       your excessive shipments that were 23       diverted?</p> <p>24       MR. MOUGEY: Objection.</p>
Page 311	Page 313
<p>1        well, as I explained earlier, that I have 2        interpolated between the 1997 and the 3        2018 levels for the reasons I did. For 4        no other reasons. And that includes for 5        no other consideration beyond the actual 6        levels of 2018. However, they may or may 7        not be impacted by the quotas you're 8        describing.</p> <p>9        Q. You don't know as you sit 10       here today, correct?</p> <p>11       A. I don't know anything about 12       the quotas, as I said now two or three 13       times. They did not impact any of my 14       calculations including in this section.</p> <p>15       Q. Your report classifies 16       shipments of prescription opioids as 17       excessive, correct?</p> <p>18       A. Relative to the benchmarks 19       in Section 10, that's correct.</p> <p>20       Q. Which of these shipments 21       should distributors have refused to ship 22       to their pharmacy customers?</p> <p>23       A. In Section 10?</p> <p>24       Q. Yes, sir.</p>	<p>1        Outside the scope.</p> <p>2        THE WITNESS: And it's just 3        mischaracterizing what I did in 4        Section 10. I'm not identifying 5        individual transactions in 6        Section 10.</p> <p>7        I'm just saying at a macro 8        level, the amount of MME per 9        capita shipped into Cuyahoga and 10       Summit went up by a factor of 11        eight or ten, and then came back 12        down by nearly 50 percent, and 13        I've explained how that dramatic 14        increase exceeds some gradual 15        growth from the earlier levels to 16        the later levels.</p> <p>17       BY MR. EPPICH:</p> <p>18       Q. Do you plan to offer any 19        opinions in this case as to whether or 20        not the excessive shipments that are 21        represented in your report in Section 10 22        were diverted?</p> <p>23       A. No.</p> <p>24       Q. Your 1997 baseline, you</p>

<p>1 recall testifying about that earlier  2 today?  3 A. Yes.  4 Q. Your 1997 baseline assumes  5 all prescriptions were necessary?  6 A. Yes.  7 Q. Your 1997 baseline does not  8 consider any additional factors beyond  9 the number of prescriptions that year,  10 correct?  11 A. There's a whole lot of stuff  12 it doesn't consider. Like car sales, I  13 don't know what it is that you're  14 referring to. I don't have any idea what  15 you might be referring to.  16 It doesn't include anything  17 except the MME per capita shipped in  18 1997.  19 I apologize. I don't mean  20 to get snippy. I'm getting hungry. I  21 need a Snickers bar.  22 Q. Would you like to take a  23 break, sir?  24 A. Whenever is a convenient</p>	<p>Page 314</p> <p>1 it was -- it was my attempt to aggregate  2 up the different DEA numbers for the same  3 defendant.  4 Q. So in the left column, you  5 have the company family; is that correct?  6 A. Yes.  7 Q. And in the middle column,  8 you have the various entity names that  9 are associated with that family?  10 A. I would say it a little bit  11 differently. In the ARCOS data I think  12 what we see is the middle and the right  13 column. And for purposes of creating our  14 report, sometimes we want to create the  15 report by defendant. And so you would  16 have multiple DEA numbers with exactly  17 the same name in the ARCOS data and then  18 other times with slight variations on the  19 name. So we just tried to aggregate  20 those up to the best we could to a common  21 name for each defendant.  22 Q. So defendants' names are in  23 the left column. Is that what you're  24 saying?</p>
<p>1 time.  2 MR. EPPICH: We can take a  3 break.  4 Let's go off the record.  5 THE VIDEOGRAPHER: Off the  6 record at 5:06 p.m.  7 (Short break.)  8 THE VIDEOGRAPHER: We are  9 back on the record at 5:17 p.m.  10 BY MR. EPPICH:  11 Q. Dr. McCann, I'm handing you  12 what we marked as McCann Exhibit 8.  13 (Document marked for  14 identification as Exhibit  15 McCann-8.)  16 THE WITNESS: Thank you.  17 BY MR. EPPICH:  18 Q. Dr. McCann, Exhibit 8 is  19 Appendix 6 from your report. Do you  20 recognize it?  21 A. Yes.  22 Q. Now, what is Appendix 6?  23 A. I forget where in the report  24 we reference it, or I reference it. But</p>	<p>Page 315</p> <p>1 A. Correct.  2 Q. Okay. And the entities that  3 are associated with that defendant are in  4 the middle column, correct?  5 A. I'm sorry, as I would say it  6 those are the names that we observe in  7 the ARCOS data.  8 Q. Okay. I don't mean to  9 confuse you. I'm sorry about that.  10 But let's -- let me have you  11 turn to Page 6. It's Page 141 of your  12 report.  13 A. Oh. Yes.  14 Q. Now, on Page 141 the last  15 entry for the McKesson Corporation, is  16 seller name Watson Pharma Incorporated.  17 Do you see that?  18 A. Yes.  19 Q. Are you aware that Watson  20 Pharma Incorporated is not a McKesson  21 entity?  22 A. In general, I know of a  23 Watson entity that is distinct from  24 McKesson. I'm not sure, as I sit here</p>

Page 318	Page 320
<p>1 why -- why this particular seller name      2 and DEA number is associated with      3 McKesson. I would have to check on that.      4 Q. But if Watson Pharma --      5 or -- excuse me. If Watson Pharma Inc.      6 is not a McKesson entity, you would agree      7 with me that including Watson in the      8 McKesson family would be a mistake?      9 A. Unless there was some other      10 reason why it should be included. And      11 there may or may not be. I just don't      12 know as I sit here.      13 Q. How did you determine which      14 DEA numbers coincided with which seller's      15 family?      16 A. Well the ARCOS data gives      17 the DEA number, the seller DEA number and      18 the seller name. And so for many of them      19 it was obvious there was a direct      20 correspondence between for instance the      21 30 or 50 or 75 Cardinal Health DEA      22 numbers and Cardinal Health, and the same      23 thing for some of these others.      24 I'm thinking that to the</p>	<p>1 "The McKesson data is missing all      2 transactions involving 47 NDCs, 14      3 million MME."      4 A. Yes.      5 Q. Did I read that correctly?      6 A. Yes.      7 Q. It's true that nowhere in      8 your report do you state for which NDCs      9 McKesson data is missing, correct?      10 A. Well, that's not true, or      11 not completely true, anyway. Footnote 33      12 identifies three of the NDC codes that      13 account for 58 percent of that missing      14 MME. It doesn't -- it doesn't list the      15 other 44 NDCs that cover the remaining      16 42 percent. But it lists three of -- the      17 three biggest ones.      18 Q. And sitting here today, do      19 you know what NDCs you allege are missing      20 from the McKesson data?      21 A. Not as I sit here, other      22 than the three that are itemized in the      23 footnote.      24 Q. If we could turn to your</p>
<p style="text-align: center;">Page 319</p> <p>1 extent that there -- that there would be      2 adjustments to our list, it would be to      3 include more DEA numbers with the seller      4 family than what we've included.      5 What we've mostly done is      6 just include the obvious ones, like the      7 McKesson DEA numbers, with the exception      8 of the last two on this list for      9 McKesson. Prescription Pak, Division of      10 McKesson Corp., well, that seems obvious.      11 Watson Pharma, I just will      12 have to check to see why that particular      13 seller DEA number we've associated with      14 McKesson.      15 Q. Did you perform this      16 correlation between the seller family and      17 the seller names yourself or did someone      18 on your staff?      19 A. Someone on my staff.      20 Q. If we could turn to Page 38      21 of Exhibit 2 or 3, your report, to Page      22 38. I'm looking at Paragraph Number 93.      23 A. Yes.      24 Q. The first sentence says,</p>	<p style="text-align: center;">Page 321</p> <p>1 second report, which is your supplemental      2 report dated April 3rd. And if you      3 wouldn't mind turning to Page 8 of that      4 report at Paragraph 20.      5 Paragraph 20 reads, "I was      6 provided the two pages of figures      7 attached hereto as Appendix D, which      8 purport to illustrate the total dosage      9 units of opioids shipped by McKesson to,      10 A, the United States; and, B, to Ohio."      11 Did I read that correctly?      12 A. Yes.      13 (Document marked for      14 identification as Exhibit      15 McCann-9.)      16 BY MR. EPPICH:      17 Q. Let me introduce as      18 Exhibit 9, Appendix D of your report.      19 A. Thank you.      20 Q. If we turn to page --      21 Appendix D is Page 85 of your second      22 report.      23 This contains additional      24 McKesson figures and tables, correct?</p>

Page 322	Page 324
<p>1 A. Correct.</p> <p>2 Q. What are these figures and</p> <p>3 tables?</p> <p>4 A. My understanding is that</p> <p>5 these are figures and tables that were</p> <p>6 used in depositions as demonstratives and</p> <p>7 we were asked to verify that this was our</p> <p>8 work product. I think that was the</p> <p>9 purpose of this supplemental.</p> <p>10 Q. Is this your work product,</p> <p>11 Dr. McCann?</p> <p>12 A. Yes.</p> <p>13 Q. All of the tables and</p> <p>14 figures in Appendix D?</p> <p>15 A. Yes.</p> <p>16 Q. Did you produce the</p> <p>17 underlying data files or Excel files that</p> <p>18 are -- that are associated with each of</p> <p>19 these charts and tables?</p> <p>20 A. I think so. That was our</p> <p>21 intention.</p> <p>22 Q. Do you plan to offer any</p> <p>23 opinions about these charts or tables</p> <p>24 that you have in Appendix D?</p>	<p>1 briefly before we went back on the</p> <p>2 record. Thank you for being here today</p> <p>3 and for your time.</p> <p>4 A. You're welcome. Thank you.</p> <p>5 Q. Before you were asked to do</p> <p>6 so by the lawyers in this litigation, did</p> <p>7 you have any experience reviewing or</p> <p>8 analyzing distributor transactional data?</p> <p>9 A. No.</p> <p>10 Q. And when I use the term</p> <p>11 "distributor transactional data," what do</p> <p>12 you understand that to mean?</p> <p>13 A. I'm sorry. I understood you</p> <p>14 to mean specifically opioid or controlled</p> <p>15 substance transaction data. We've done a</p> <p>16 tremendous amount of work on very large</p> <p>17 datasets, some of them larger than this</p> <p>18 ARCos dataset. Some of which you could</p> <p>19 think of as involving distributors. But</p> <p>20 not pharmaceutical drugs and not</p> <p>21 distributors of pharmaceutical drugs.</p> <p>22 Q. Okay. So have -- have you</p> <p>23 ever had experience outside of this</p> <p>24 litigation reviewing or analyzing</p>
<p>1 A. Not other than to perhaps</p> <p>2 report what they illustrate.</p> <p>3 Q. Sitting here today, no one</p> <p>4 has asked you to offer any opinions about</p> <p>5 the methodologies behind these tables and</p> <p>6 figures, or what they mean?</p> <p>7 A. Correct.</p> <p>8 MR. EPPICH: Let me pass you</p> <p>9 to my colleague. We'll go off the</p> <p>10 record.</p> <p>11 THE VIDEOGRAPHER: Off the</p> <p>12 record at 5:28 p.m.</p> <p>13 (Short break.)</p> <p>14 THE VIDEOGRAPHER: We are</p> <p>15 back on the record at 5:31 p.m.</p> <p>16 - - -</p> <p>17 EXAMINATION</p> <p>18 - - -</p> <p>19 BY MR. BOEHM:</p> <p>20 Q. Welcome back after a short</p> <p>21 break.</p> <p>22 A. Thank you.</p> <p>23 Q. Mr. McCann, my name is Paul</p> <p>24 Boehm. We introduced ourselves very</p>	<p>1 distributor transactional data, including</p> <p>2 sales data, purchase data, or ordering</p> <p>3 data?</p> <p>4 A. Certainly not with respect</p> <p>5 to pharmaceutical products that I can</p> <p>6 remember.</p> <p>7 Q. How about outside of</p> <p>8 pharmaceutical products, as far as you</p> <p>9 can remember?</p> <p>10 A. Well, earlier in my career,</p> <p>11 I did a fair bit of antitrust consulting.</p> <p>12 And there shipments of drugs -- I'm</p> <p>13 sorry, drugs, other products,</p> <p>14 agricultural products or automobiles or</p> <p>15 other products, and their pricing would</p> <p>16 be relevant to some of that analysis, but</p> <p>17 it's some time ago and I don't recall the</p> <p>18 details. And although I -- I was</p> <p>19 involved in some antitrust-related work</p> <p>20 in the pharmaceutical industry, it's</p> <p>21 not -- it wasn't analyzing data of the</p> <p>22 type that I've analyzed in this case.</p> <p>23 Q. Okay. Then is it fair to</p> <p>24 say that you have not, outside of this</p>

Page 326	Page 328
<p>1 experience in this particular litigation,    2 ever had the opportunity to analyze or    3 review transactional data from wholesale    4 drug distributors?</p> <p>5 A. Yes. At least not that I    6 recall.</p> <p>7 Q. Do you agree that, of the    8 five approaches that are described in    9 your report in this case, none of them    10 has been standardized or endorsed by the    11 United States Drug Enforcement Agency?</p> <p>12 A. I don't know one way or the    13 other.</p> <p>14 Q. Do you agree that none of    15 the five approaches that you set forth in    16 your report in this lawsuit have been    17 adopted or mandated by federal or state    18 statute?</p> <p>19 A. I don't know one way or the    20 other.</p> <p>21 Q. Do you agree that none of    22 the approaches set forth in your report    23 have been endorsed by the Food and Drug    24 Administration?</p>	<p>1 would be more appropriate for a    2 particular customer or for a particular    3 geographic location or for any other kind    4 of particularized analysis than any of    5 the other approaches that you've set    6 forth in your report?</p> <p>7 A. No.</p> <p>8 Q. As I understand it, in    9 applying the metrics or approaches that    10 are set forth in your report for flagging    11 orders, you do not take into account any    12 individualized characteristics of a    13 particular pharmacy or a hospital that    14 might place an order to a distributor; is    15 that correct?</p> <p>16 A. Close, but not quite. So    17 for instance in the first methodology,    18 the first methodology includes what    19 orders that pharmacy has placed with each    20 distributor in the prior six months. So    21 it takes into account some information    22 about that pharmacy, at least in that    23 regard. Maybe other regards, other    24 information that it's not taking into</p>
<p>1 A. I don't know one way or the    2 other.</p> <p>3 Q. Do you know one way or    4 another whether or not any of the five    5 approaches that are set forth in your    6 report for purposes of this lawsuit have    7 been endorsed, adopted, or otherwise    8 mandated by any regulatory agency in the    9 United States, either federal or state?</p> <p>10 A. No.</p> <p>11 Q. Are you expressing any    12 opinion or do you otherwise have a view    13 about whether any of the five approaches    14 that you describe in your report are    15 better than any of the other approaches?</p> <p>16 A. No.</p> <p>17 Q. Do you have any opinion that    18 you're offering at all about the quality    19 of any one of the five approaches that    20 you've used in your report for flagging,    21 is the term that you use, orders?</p> <p>22 A. No.</p> <p>23 Q. Are you expressing any    24 opinion that any one of these approaches</p>	<p>1 account, but it is taking into account    2 some information about the pharmacy.</p> <p>3 Q. Outside of order history for    4 a particular pharmacy, do you, in    5 applying any of the metrics or approaches    6 described in your report, take into    7 account any individualized    8 characteristics of the particular    9 pharmacies or hospitals that place orders    10 with distributors?</p> <p>11 A. Well, there's a little    12 confusion in that question, I apologize    13 for pausing so long. But the Section 9    14 analysis is on shipments to -- I'm sorry,    15 to retail and chain pharmacies. And it    16 excludes what is identified as a hospital    17 in the ARCOS data. So if you take the    18 word "and hospitals" out of your    19 question, then I think I would agree with    20 the implication of your question.</p> <p>21 Q. Let me just -- with that    22 clarification, let me see if I can ask    23 that question again in a way that makes    24 it easier for you to answer, hopefully.</p>

<p style="text-align: right;">Page 330</p> <p>1 We'll cross our fingers. I'm able to do 2 that.</p> <p>3 Outside of a particular 4 pharmacy's history of ordering 5 prescription opioid medications, do you, 6 in applying any of the metrics or 7 approaches that are described in your 8 report, take into account any 9 individualized characteristics of a 10 pharmacy that would be placing orders 11 with a distributor?</p> <p>12 A. Not other than they're a 13 retailer or chain pharmacy, no.</p> <p>14 Q. And when you add that caveat 15 about whether it's a retail or a chain 16 pharmacy, can you please describe what 17 you meant to refer to?</p> <p>18 A. Sure. In Method 2 and 19 Method 3, the two times trailing 12-month 20 national average and three times trailing 21 12-month national average, we average 22 across similar dispensers that the 23 distributor services. And so looking at 24 the ARCOS data or the individual</p>	<p style="text-align: right;">Page 332</p> <p>1 A. Yes. At least not as I 2 sit -- as I sit here I'm not aware of any 3 other ways in which that applies.</p> <p>4 Q. As part of your application 5 of the metrics that are set forth in your 6 report in this lawsuit, did you take into 7 account the amount of total foot traffic, 8 for example, that goes through a 9 particular pharmacy?</p> <p>10 A. No, although we would have 11 if we had had that data perhaps. There 12 are some alternatives that we can 13 imagine, but it would require data that 14 has not been produced in discovery.</p> <p>15 Q. Did you take into account 16 any information about whether or not a 17 particular pharmacy that is placing 18 orders with a distributor is located 19 proximate to a long-term care facility or 20 a major hospital?</p> <p>21 A. Not beyond the impact that 22 that might have on the order history of 23 the pharmacy. I don't think so.</p> <p>24 Q. I'm not -- just to be clear,</p>
<p style="text-align: right;">Page 331</p> <p>1 defendant transaction data, we are -- we 2 are recognizing that the subject pharmacy 3 is a retailer or chain pharmacy, and when 4 calculating the averages across the 5 country, when we have national data and 6 it's relevant, we only look at other 7 dispensers the distributor ships to that 8 is in that same category.</p> <p>9 So the -- the category 10 matters, so that's an attribute of the 11 individual pharmacy. And the order 12 history matters in the first approach. 13 Beyond those two ways it matters. The 14 attributes of the individual pharmacy 15 matter. I'm not aware of additional ways 16 it matters.</p> <p>17 Q. Okay. Other than what you 18 just mentioned, you don't take into 19 account any individualized 20 characteristics of pharmacies who may be 21 placing orders with distributors for 22 purposes of applying the five metrics 23 or -- or methods that you set forth in 24 your report; is that fair?</p>	<p style="text-align: right;">Page 333</p> <p>1 I'm not asking about the order history. 2 I'm asking specifically whether or not as 3 part of your application of these methods 4 that you've described for flagging 5 orders, did you specifically take into 6 account whether or not a particular 7 pharmacy was proximate or not to a 8 long-term care facility or a major 9 hospital?</p> <p>10 A. What I meant by my answer 11 was, to the extent that a pharmacy is 12 close to a long-term care facility or 13 hospital or not, may affect its ordering. 14 I think that's the implication of your 15 question. And so that would also impact 16 the trailing six-month baseline unless 17 it's a newly opened hospital next to the 18 pharmacy that wasn't there during the 19 first six months.</p> <p>20 So other than the impact 21 that that proximity has on the order 22 history, no.</p> <p>23 Q. Okay. So you did not 24 specifically consider, as part of your</p>

Page 334	Page 336
<p>1 analysis, whether or not a particular  2 pharmacy was located near a long-term  3 care facility or a major hospital,  4 correct?</p> <p>5 A. Correct.</p> <p>6 Q. In applying any of the  7 metrics or approaches that you set forth  8 in your report, did you take into  9 account, with respect to any particular  10 pharmacy, the percentage of controlled  11 substances ordered by that pharmacy  12 relative to the pharmacy's total orders  13 of all prescription medications?</p> <p>14 A. No. That's an example of  15 the data I was alluding to a minute ago.  16 If it were produced in discovery, it  17 might be useful, it might be interesting  18 and useful. But my understanding is it's  19 not available.</p> <p>20 Q. Setting aside whatever  21 discovery issues and your understanding  22 of those discovery issues. I just want  23 to be clear that you have not, as part of  24 your approach in this case, and</p>	<p>1 correct?</p> <p>2 A. Correct.</p> <p>3 Q. As part of your application  4 of the approaches that are set forth in  5 your report in this lawsuit, did you take  6 into account specifically any changes in  7 recommended prescribing practices in the  8 medical community for the use of  9 prescription opioids?</p> <p>10 A. Not except indirectly,  11 perhaps, in Section 10.</p> <p>12 Q. I just want to know  13 specifically if you, as part of your  14 application of these approaches you took  15 into account or not, any changes in  16 recommended prescribing practices for the  17 use of prescription opioid medications?</p> <p>18 A. Not directly, if by that you  19 mean on such and such a date there's a  20 change in guidance, do I, on that date,  21 change something in my analysis. The  22 answer is no.</p> <p>23 Indirectly, any changes in  24 guidance are affecting the results in 9</p>
<p>1 application of these metrics, taken that  2 information into account, correct?</p> <p>3 A. The information is not  4 available to me. If it were, as I said,  5 it might make for some interesting  6 analysis. So I haven't taken into  7 account any information that's not  8 available to me.</p> <p>9 Q. So that's a -- that's a no,  10 you did not take that into account,  11 right? Let me --</p> <p>12 A. With an explanation, yes.</p> <p>13 Q. Let me -- let me clean it  14 up. Right, I get the explanation. So  15 that's on the record.</p> <p>16 But my basic question to you  17 is, just to be clear, in applying the  18 metrics and approaches that are set forth  19 in your report for flagging orders, you  20 did not take into account with respect to  21 any individual pharmacy the percentage of  22 controlled substances ordered by that  23 pharmacy relative to the pharmacy's total  24 orders of all prescription medications,</p>	<p>1 and 10 -- Section 9 and 10, but there's  2 no direct application of that  3 hypothetical change in guidance on a  4 calculation that the algorithm is run.</p> <p>5 Q. Is it fair to say that the  6 algorithm that you and your team were  7 running for purposes of applying the five  8 approaches to flagging orders did not  9 take into account -- there was nothing in  10 the algorithm that took into account any  11 changes to recommendations about  12 prescribing practices of prescription  13 opioid medications?</p> <p>14 A. I don't think that's  15 completely accurate. I think that's --</p> <p>16 Q. And I'll pause you there.</p> <p>17 And will you please explain, if you can,  18 what specifically in the actual algorithm  19 that you and your team applied, with  20 respect to any of the five approaches,  21 that directly took into account changes  22 over time in recommended prescribing  23 practices for the use of prescription  24 opioid medications?</p>

Page 338	Page 340
<p>1       A. Well, in Sections --</p> <p>2 algorithms or methods or Approaches 2 and</p> <p>3 were comparing a pharmacy's shipments</p> <p>4 to twice or three times the trailing</p> <p>5 12-month average to other pharmacies</p> <p>6 serviced by the same distributor. And so</p> <p>7 to the extent changes in guidance affects</p> <p>8 prescribing behavior, increasing it or</p> <p>9 decreasing it, that shows up in the</p> <p>10 national averages, and so has some impact</p> <p>11 on Method 2 and Method 3.</p> <p>12      Q. To what extent did your</p> <p>13 application of the algorithms that you</p> <p>14 set forth in your report measure, if at</p> <p>15 all, the impact that changes in</p> <p>16 prescribing guidelines over time had on</p> <p>17 the application of your approaches?</p> <p>18      A. They don't do that.</p> <p>19      Q. They don't do that?</p> <p>20      A. Correct.</p> <p>21      Q. Your algorithms are not set</p> <p>22 up to measure in any way how changes in</p> <p>23 prescribing guidelines affected the</p> <p>24 flagged orders pursuant to the methods</p>	<p>1       A. No.</p> <p>2       Q. I just wanted to make sure I</p> <p>3 understood this very clearly. Are you in</p> <p>4 any way relying on the opinions of, or</p> <p>5 information from any consultants or</p> <p>6 experts that the lawyers have retained in</p> <p>7 this litigation for purposes of informing</p> <p>8 your own opinions and your own report?</p> <p>9       A. No.</p> <p>10      Q. There were a couple of</p> <p>11 questions earlier today about diversion.</p> <p>12      A. Yes.</p> <p>13      Q. Do you remember that?</p> <p>14       I just wanted to make sure I</p> <p>15 understood, that you do not have any</p> <p>16 opinions about the physical security that</p> <p>17 any distributor uses or has used to</p> <p>18 prevent diversion of controlled</p> <p>19 substances including prescription opioid</p> <p>20 medications, true?</p> <p>21      A. True.</p> <p>22      Q. And you have not identified</p> <p>23 any specific instances of diversion based</p> <p>24 on your review of any of the materials</p>
<p>1       you're espousing in your report, fair?</p> <p>2       A. Correct. I don't know about</p> <p>3 espousing, but presenting. I'm not</p> <p>4 advocating for one or the other.</p> <p>5       Q. That's a fair clarification.</p> <p>6       There was a reference</p> <p>7 earlier today about DEA annual quotas.</p> <p>8 Do you remember a couple of questions</p> <p>9 about DEA quotas?</p> <p>10      A. Yes.</p> <p>11      Q. Are you familiar with how</p> <p>12 DEA quotas for prescription opioid</p> <p>13 medications are set?</p> <p>14      A. No.</p> <p>15      Q. Do you know the extent to</p> <p>16 which annual quotas set by the DEA for</p> <p>17 the use of prescription opioid</p> <p>18 medications has varied over time?</p> <p>19      A. No.</p> <p>20      Q. Do you have any knowledge</p> <p>21 about the ways in which guidelines to the</p> <p>22 medical community for the appropriate use</p> <p>23 of prescription opioid medications has</p> <p>24 changed over time?</p>	<p>1       that you've looked at in this lawsuit,</p> <p>2 correct?</p> <p>3       A. Correct. I haven't made any</p> <p>4 attempt to do that.</p> <p>5       Q. One of the things that I</p> <p>6 understand you did, pursuant to the</p> <p>7 lawyers' request, was to compare</p> <p>8 individual defendants' transactional data</p> <p>9 with the information that you saw in the</p> <p>10 DEA's ARCOS database; is that right?</p> <p>11      A. Yes.</p> <p>12      Q. You tried to match it up?</p> <p>13      A. Yes.</p> <p>14      Q. And in Cardinal's case, you</p> <p>15 concluded that the match had nearly</p> <p>16 perfect overlap. Do you remember writing</p> <p>17 that in your report?</p> <p>18      A. With the two exceptions that</p> <p>19 I identified in the report specifically</p> <p>20 for Cardinal. So maybe that wording</p> <p>21 isn't particularly good, because where</p> <p>22 they do not overlap is biggest for</p> <p>23 Cardinal Health compared to any of the</p> <p>24 other defendants. You've got the 610,000</p>

<p style="text-align: right;">Page 342</p> <p>1 duplicates for Cardinal Health, and then 2 you've got three weeks where there are no 3 transactions at all in Cuyahoga and 4 Summit for Cardinal Health. 5 So separating those two 6 periods, the rest of the data lines up 7 really well for Cardinal. 8 Q. You're referring to an 9 exception in the data from March 2008? 10 Is that what you're talking about? 11 A. That's part of it. 12 Q. Well, you write on Page 34 13 of your report -- is that where you're 14 looking right now? 15 A. Yes. 16 Q. You wrote, "Virtually all of 17 the transactions in Cardinal Health's 18 data and the transactions in the ARCOS 19 data match, with the exception of 20 March 2008." 21 Do you see that? 22 A. Yes. 23 Q. Did I read that correctly? 24 A. Correct. But you have to</p>	<p style="text-align: right;">Page 344</p> <p>1 Q. What paragraph in your 2 report are you referring to? 3 A. I'm -- I'm looking for it. 4 Bear with me a minute, please. 5 So if you look at Paragraph 6 55 on Page 20, it says, "I removed seven 7 types of transactions from the ARCOS data 8 before conducting further analysis." 9 The first one there is, 10 "Obvious duplicate transactions when the 11 same transaction was reported to ARCOS 12 more than once by the same registrant." 13 And what I'm referring to 14 there is itemized in part in 15 Appendix 2 -- yeah, I'm sorry. Yeah, you 16 can see in the next paragraph, 56, it 17 says, "Appendix 2 provides a detailed 18 explanation of these exclusions and 19 corrections." And when you then look at 20 Appendix 2, I think the first item is 21 610,000 Cardinal Health transactions, by 22 far the biggest correction or exclusion 23 is those -- 24 Q. When you say correction or</p>
<p style="text-align: right;">Page 343</p> <p>1 read it in the context of an earlier 2 paragraph referring to Cardinal Health. 3 You have to read the two of the 4 paragraphs together. 5 Q. And then you say, "Otherwise 6 there was nearly perfect overlap of the 7 ARCOS data and the Cardinal Health 8 transaction data." 9 Do you see that? 10 A. Yes, with the same 11 qualification. You have to read an 12 earlier paragraph with this paragraph. 13 You can't read it in isolation. 14 Q. What other paragraph are you 15 referring to? 16 A. It's whatever paragraph 17 refers to Appendix 2. I don't have the 18 appendix in this spiral-bound package 19 that was handed to me at the beginning. 20 Q. Is there another paragraph 21 in your report that you think would 22 direct us to Appendix A that's relevant 23 to my question? 24 A. Yes.</p>	<p style="text-align: right;">Page 345</p> <p>1 exclusion, are you -- are you saying 2 Cardinal reported that information once 3 and then reported it to the DEA again? 4 A. As many as 13 times, the 5 same transaction 13 times. Or at 6 least -- 7 Q. You're not suggesting that 8 Cardinal didn't provide that information 9 to DEA, are you? 10 A. No, I'm saying that -- that 11 it was produced -- sometimes it appears 12 that the same transaction is produced up 13 to 39 times by Cardinal Health, or at 14 least as we get the data from the DEA -- 15 I made that qualification earlier. I 16 don't know what Cardinal Health produced 17 to the DEA, submitted to the DEA through 18 ARCOS. I know what the DEA gave me that 19 is attributed to Cardinal Health. And 20 there is 610,000 Cardinal Health 21 transactions that are reported as many as 22 39 times, the same transaction. 23 Q. When you say as many as 39 24 times, that -- that could be anywhere</p>

Page 346	Page 348
<p>1 between one and 39. Do you have an  2 actual opinion about how many times you  3 think it was reported?  4 A. Yeah, it's really  5 interesting. What you observe --  6 Q. No, I just -- I just have a  7 specific question. Do you know, between  8 the number of one and 39, how many times  9 you think Cardinal Health provided that  10 information to the United States Drug  11 Enforcement Agency?</p> <p>12 MR. MOUGHEY: Craig, is it  13 listed in Exhibit 2?</p> <p>14 THE WITNESS: The complete  15 explanation is not in Appendix 2,  16 but we observe --</p> <p>17 BY MR. BOEHM:</p> <p>18 Q. Could -- could you answer my  19 question and then maybe we could --  20 A. All right.</p> <p>21 Q. -- follow-up, if I have more  22 questions I need to hear about.</p> <p>23 A. Sure. I'm trying to, but if  24 you ask it again, I'll be more succinct.</p>	<p>1 But I'm saying it my way on  2 purpose, because that's what I'm  3 interested in hearing about. I don't  4 want you to flip it from one to 39 and  5 then 610. Because you flipped it from up  6 to 39 and then you said 610. So I just  7 want to ask it the way I'm asking it.</p> <p>8 A. Well, the record is going to  9 be confusing, but okay. Ask it again and  10 I'll try to answer it the way you're  11 asking it.</p> <p>12 Q. Okay. You say that on  13 Page 20 of your report, you make  14 reference to transactions that may have  15 been reported to the United States Drug  16 Enforcement Agency on more than one  17 occasion, right?</p> <p>18 A. No. That's not what I'm  19 referring to.</p> <p>20 Q. Okay. What do you mean when  21 you say duplicate transactions that are  22 reported to ARCos?</p> <p>23 A. Not on more than one  24 occasion. On the same day, the same</p>
<p>1 Q. Sure. You said up to 39  2 times. So my question to you is, do you  3 know how many times Cardinal Health  4 provided to the United States Drug  5 Enforcement Agency these data that you  6 believe may have been, although you are  7 not certain, provided to the DEA more  8 than one time?</p> <p>9 A. Two parts, but the answer is  10 yes.</p> <p>11 Q. How many times?</p> <p>12 A. 610,000 times.</p> <p>13 Q. Okay. So your testimony is  14 that -- and -- and what package of data  15 are you referring to when you say that  16 Cardinal provided the same data 610  17 times?</p> <p>18 A. You're saying it differently  19 than I am.</p> <p>20 Q. I'm saying it the way I'm  21 saying it, and that's how I want you to  22 hear it and answer it. So if you have  23 a -- maybe -- maybe Peter later can  24 clarify if he feels like he needs to.</p>	<p>1 transaction reported up to 13 times --  2 exactly the same transaction reported up  3 to 13 times in single increments. One  4 time, two times, three times, four times,  5 five times, up to 13 times.</p> <p>6 And then it jumps to being  7 in even numbers. So 14, 16, 18, 20, 22,  8 24, 26. And then it jumps to 39.</p> <p>9 And that's how many times  10 the identical transaction is reported,  11 and it's from a single Cardinal Health  12 facility.</p> <p>13 Q. Is it a single transaction  14 that's being reported multiple times?</p> <p>15 A. Yes. That's how we  16 interpret it. And it's not happening --  17 it's not a single transaction. It's tens  18 of thousands of transactions by this one  19 DEA number being reported up to 39 times.</p> <p>20 Q. Do you know as you sit here  21 today whether or not whatever it is  22 you're seeing in the ARCos database is  23 attributable to the nature of the reports  24 made by Cardinal Health as opposed to</p>

Page 350	Page 352
<p>1 something on the DEA's end of storing      2 those data?      3 A. No, I tried to make that      4 clear earlier. I do not -- I can't      5 distinguish between those two.      6 Q. You don't know. But in any      7 event, you are not suggesting that with      8 respect to the transactions you're      9 referring to now that they were in some      10 way withheld from the DEA, correct?      11 A. No. If anything, the      12 opposite.      13 Q. Now, going back to the      14 portion of your report where you say that      15 Cardinal's reporting had nearly perfect      16 overlap --      17 A. Yes.      18 Q. -- with what you found in      19 the ARCOS database.      20 You remember that, right?      21 A. Correct.      22 Q. And indeed, you said in your      23 report that over 99.9 percent of      24 Cardinal's transactional data was a match</p>	<p>1 in ARCOS, right?      2 A. Correct.      3 Q. And in the case of Cardinal      4 Health, you determined that 99.9 percent      5 of the transactional data matched up      6 perfectly with what you found in ARCOS,      7 right?      8 A. After excluding the known      9 non-overlaps, just as it says in the      10 title, that's correct.      11 Q. Is it typical for you, when      12 you're reviewing very large datasets and      13 comparing maybe kind of corresponding      14 large datasets, to find small      15 discrepancies here and there?      16 A. Yes.      17 Q. Now, as I understand it, and      18 please do correct me if I've      19 misunderstood something, the ARCOS data      20 that you used for purposes of your      21 analyses as -- as set forth in your      22 report covered January 2006 through      23 December 2014; is that right?      24 A. Yes.</p>
<p style="text-align: center;">Page 351</p> <p>1 with what you found in the DEA's ARCOS      2 database. Do you remember that?      3 A. I'm sorry, could you refer      4 me to the page and paragraph, please?      5 Q. Sure. Happy to.      6 If you look at Page 32, you      7 have a table. I believe it's Table 14?      8 A. Yes.      9 Q. And you have in this table      10 identified several distributors, correct?      11 A. Correct.      12 Q. And the first one you list      13 is Cardinal Health.      14 Do you see that?      15 A. Yes.      16 Q. And in that first set of      17 columns, you've written transactions that      18 are in both datasets.      19 Do you see that?      20 A. Yes.      21 Q. And I understand that to      22 mean that you're trying to calculate a      23 percentage of transactional data that      24 matches up perfectly with what you find</p>	<p style="text-align: center;">Page 353</p> <p>1 Q. But you did not necessarily      2 limit your review of the distributors'      3 transactional data to that same period of      4 time, right?      5 A. Correct.      6 Q. As I understand it, the      7 period of years for the transactional      8 data you reviewed varied distributor by      9 distributor, right?      10 A. Correct.      11 Q. For some of the distributors      12 you used transactional data that went      13 many years before 2006, right?      14 A. Yes.      15 Q. And for some you didn't      16 review any transactional data prior to      17 2006, right?      18 A. Correct.      19 Q. Do you recall that for      20 Cardinal the transactional data you      21 looked at went back to 1996?      22 A. Yes, '96 or '97. I forgot      23 as I sit here. But back into the mid      24 1990s.</p>

Page 354	Page 356
<p>1       Q. And, in fact, the data that 2 you looked at for Cardinal went back 3 farther in time than the data that you 4 had for any other defendant, right? 5       A. Yes. 6       Q. Earlier today you've given 7 testimony and it's set forth in your 8 report, that whenever one of your methods 9 flagged a transaction, then you would 10 flag every subsequent transaction from 11 that date going forward, correct? 12      A. Yes. 13      Q. And that flagging for 14 subsequent transactions was automatic, 15 right? 16      A. Yes. 17      Q. In other words, you didn't 18 do any further analysis of the subsequent 19 transactions to measure them in any way. 20 They were automatically flagged, right? 21      A. Yes. 22      Q. Given your use of this "flag 23 every subsequent transaction" approach, 24 the question of how far back in time</p>	<p>1 methodologies, you are going to end up 2 flagging more transactions, right? 3       A. Again, it's a little bit 4 more complicated, because it depends on 5 the pharmacy turnover, you know, how long 6 the relationship lasts between a 7 distributor and a pharmacy. And it 8 depends on the general trend, up or down, 9 in the data. But in this application, I 10 think in general what you're saying is 11 correct. 12      Q. And why is what -- to 13 anybody who may not be in the weeds of 14 this as much as we are, explain why what 15 I'm saying in general is correct? 16      A. Well, as I've presented the 17 stylized fact, the amount of prescription 18 opioids increases significantly from 1997 19 to 2010 or '11. We saw that in Section 20 10 of my report. 21           And if Cardinal Health, for 22 instance, and some other distributor, 23 Distributor B, both were shipping from 24 1997, but for some reason Distributor B</p>
<p style="text-align: center;">Page 355</p> <p>1 you're looking at a particular 2 distributor's transactional data could 3 have significant implications in terms of 4 the total numbers of orders that are 5 getting flagged under your methodologies, 6 correct? 7       A. It's a little bit more 8 subtle than that. But I agree with the 9 general implication, yes, that the 10 further back in time you go, if there's a 11 big increase over time in shipments, 12 you're flagging more orders for the 13 distributors that you go back further in 14 time with. 15      Q. So if you're going back in 16 time all the way to 1996 for one 17 distributor, but you're only going back 18 in time to 2004 or 2005 or 2006 for 19 another distributor, you would expect 20 that under your approach where you're 21 flagging everything subsequent to a first 22 flagged transaction, that for the 23 distributor where you are going back 24 farther in time, under your</p>	<p style="text-align: center;">Page 357</p> <p>1 only produced data from 2002 in 2 discovery, we would start observing 3 Distributor B's data at a higher level 4 than the levels we first were observing 5 Cardinal Health's shipments. 6           And so the Cardinal Health 7 shipments obviously before the 8 Distributor B's data is produced, none of 9 those get flagged, because there is no 10 data produced by Distributor B; whereas, 11 given my stylized hypothetical, a bunch 12 of the Cardinal Health shipments may be 13 flagged. 14           And then separate and apart 15 from that, because some of these 16 thresholds, at least with respect to the 17 first -- it doesn't have any impact on 18 two, three, four or five, I don't think. 19 But with respect to the first one, the 20 relationship, the first six months for 21 Cardinal Health and a pharmacy, is at a 22 lower level. And so more of the 23 subsequent orders get flagged. 24      Q. So it's fair to say that</p>

Page 358	Page 360
<p>1 when you're doing it in the way you did      2 it, with the data that you had to look      3 at, these methodologies are going to      4 create inevitable discordance or      5 discrepancies in terms of how they get      6 applied to different distributors      7 depending on how far back in time you      8 looked at each distributor's      9 transactional data, correct?</p> <p>10 A. Well, it may or may not. If      11 you have a distributor that comes on      12 board shipping for the first time in 2002      13 in my example, I think it would be not a      14 data issue. But you could imagine what      15 would be a purely data issue, one      16 defendant not -- one distributor not      17 producing earlier data would change the      18 results. It would underestimate the -- at      19 least under the first methodology, the      20 number of orders that ought to be flagged      21 by -- for that distributor.</p> <p>22 Q. In your view, does the fact      23 that there are these inevitable      24 discrepancies as between application of</p>	<p>1 Q. Under your approach, all of      2 your approaches, every subsequent order      3 is going to get flagged, right?</p> <p>4 A. Correct.</p> <p>5 Q. Okay. And if you're      6 comparing that to a distributor where      7 you're not even looking at data until      8 2004 or 2005, you've got eight or      9 nine years where you're not even      10 performing an analysis, so there's no      11 opportunity for any of those to get      12 flagged under the very same methodology,      13 right?</p> <p>14 A. No. You're completely      15 mischaracterizing the application. The      16 application --</p> <p>17 Q. How would you apply --</p> <p>18 MR. MOUGEY: Paul, that's      19 the second time you've interrupted      20 him.</p> <p>21 MR. BOEHM: Okay. No,      22 sorry. Sure.</p> <p>23 MR. MOUGEY: I just want to      24 make sure that's the term.</p>
<p style="text-align: center;">Page 359</p> <p>1 your various approaches to different      2 distributors represent a methodological      3 flaw in the approach that you've      4 undertaken?</p> <p>5 A. No, not at all.</p> <p>6 Q. At a minimum, your      7 methodology results in very different      8 application of those approaches to      9 different distributors, depending on how      10 far back in time you look back at any      11 given distributor's transactional data,      12 correct?</p> <p>13 A. No, I don't think that's a      14 correct characterization.</p> <p>15 Q. Why not?</p> <p>16 A. Because what matter --</p> <p>17 Q. You just -- you just said      18 Mr. McCann, that if you start in 1996 and      19 you flag that first order -- let's say in      20 January of 1996, you flag an order,      21 right? Can I create that --</p> <p>22 A. Yes.</p> <p>23 Q. -- scenario for you?</p> <p>24 A. Yes.</p>	<p style="text-align: center;">Page 361</p> <p>1 MR. BOEHM: Fair. Fair.      2 Okay. Go ahead. I apologize.</p> <p>3 THE WITNESS: If you have a      4 defendant that only starts      5 shipping opioids in 2002, and you      6 have a defendant that started      7 shipping opioids in 1997, you will      8 get different results because you      9 have a different threshold for      10 that defendant that starts      11 shipping later. In some sense --</p> <p>12 BY MR. BOEHM:</p> <p>13 Q. But I'm not asking -- just      14 to be clear, my question wasn't about      15 when the shipping begins.</p> <p>16 A. But in your question you're      17 assuming that I have data that I'm not      18 looking at. You keep saying --</p> <p>19 Q. I'm not assuming that at      20 all. So let me back up and explain that      21 to you because if that's -- that may be      22 our point of confusion.</p> <p>23 I'm not asking you to talk      24 one way or another about, you know, what</p>

<p style="text-align: right;">Page 362</p> <p>1 you personally have access to. I'm just 2 asking you about the actual application, 3 like the actual nuts and bolts. You 4 talked about you being a computer. So 5 I'm talking about the technical 6 application, based on whatever you have 7 or you don't have.</p> <p>8 You are going to have a 9 discrepancy when you have eight or nine 10 more years of data for one distributor 11 versus another distributor where you 12 don't have those same years of data, for 13 whatever reason or you haven't looked at 14 it or you don't have it, whatever the 15 reason is, you haven't looked at it, 16 there is a difference, right?</p> <p>17 MR. MOUGEY: Objection.</p> <p>18 THE WITNESS: That's a 19 difference in the data. In your 20 example, there's eight or 21 nine years of data for the 22 defendant that there isn't for the 23 other. And so you apply the same 24 algorithm to those two datasets,</p>	<p style="text-align: right;">Page 364</p> <p>1 apply this methodology to data 2 from 1997 forward and compare that 3 to exactly the same defendant but 4 only apply it from 2004 forward, 5 you get different results, of 6 course, because you're applying it 7 to different data.</p> <p>8 BY MR. BOEHM:</p> <p>9 Q. Right. And there's more 10 opportunity for you to flag more orders 11 earlier on --</p> <p>12 (Telephonic interruption.)</p> <p>13 BY MR. BOEHM:</p> <p>14 Q. -- because of the assumption 15 that you've made -- actually, it's an 16 instruction that you received from 17 plaintiffs' lawyers, to assume that every 18 subsequent order ought to be flagged as 19 well, right?</p> <p>20 A. No. I wouldn't say that 21 it's more opportunity to flag orders. 22 There's just more orders. 23 There's more data in your hypothetical. 24 You've got five or six more years of</p>
<p style="text-align: right;">Page 363</p> <p>1 you get different results because 2 it's different data. Not because 3 there's a discordance or an 4 inconsistency. I don't 5 understand.</p> <p>6 BY MR. BOEHM:</p> <p>7 Q. Well, you get different data 8 because you're looking at some of the 9 data, and either because you don't have 10 it or you chose not to, whatever the 11 reason, you're not looking at data for 12 another distributor, right? So there's 13 naturally going to be a difference when 14 you are using a carry-it-forward flagging 15 approach, correct?</p> <p>16 MR. MOUGEY: Objection.</p> <p>17 THE WITNESS: You just snuck 18 back -- I didn't mean that as a 19 pejorative. But you've just 20 brought in -- back into your 21 question that there's data or 22 there may be data that I don't 23 have or that I'm not looking at. 24 What I'm saying is if you</p>	<p style="text-align: right;">Page 365</p> <p>1 data. And since the orders get flagged 2 in some sense earlier rather than later, 3 you -- you are picking up years of data 4 that are being flagged, especially -- 5 partly because the trend is up. 6 If the trend was down in 7 opioid consumption, what we are talking 8 about wouldn't occur at all. It's the 9 fact that there's a significant upward 10 trend in Cardinal Health's data and other 11 firm's data that is creating that result.</p> <p>12 Q. If you were to mis-identify 13 or mistakenly flag an order or a 14 transaction earlier in time, the 15 implications of that mistake would be 16 even greater under your methodology 17 because every subsequent order also gets 18 flagged, fair?</p> <p>19 MR. MOUGEY: Objection.</p> <p>20 THE WITNESS: I don't 21 understand that question. If you 22 can --</p> <p>23 BY MR. BOEHM:</p> <p>24 Q. Sure. Let me say it again.</p>

Page 366	Page 368
<p>1 If you don't understand, I'm happy to say      2 it again.      3       If you mis-identify or      4 mistakenly flag a transaction earlier in      5 time, that has greater implications for      6 more error because of the subsequent      7 flagging that automatically takes place      8 under your methodologies, correct?      9       MR. MOUGEY: Objection.      10       THE WITNESS: Greater than      11 what? The sentence is --      12 BY MR. BOEHM:      13       Q. Greater than later. Greater      14 than later in time.      15       The earlier you make a      16 mistake, the bigger the implications in      17 terms of that error spreading throughout      18 your analysis, right?      19       A. Maybe, maybe not. I'd have      20 to think about it.      21       Q. Well, when you identify an      22 order as flagged under your methodology,      23 would it be fair to say it's like you're      24 knocking over a domino, and every domino</p>	<p>1 going to be flagging more orders than if      2 you had data that started later. And if      3 it turned out that there was some      4 disagreement about, for instance, whether      5 that order should have been flagged or      6 maybe was cleared as a result of some due      7 diligence, the fact that you are assuming      8 no due diligence with data that goes back      9 earlier would have a bigger impact maybe,      10 maybe, maybe not, but maybe, than if the      11 data started a few years later.      12       Q. Starting on Page 72 of your      13 report you apply an approach that you      14 referred to as the "maximum daily dosage      15 units approach." Do you remember that?      16       A. Yes.      17       Q. Did you come up with that      18 name, or was that something that the      19 lawyers or your staff came up with?      20       A. I came up with it.      21       Q. Okay. How did you arrive at      22 that name?      23       A. Well, I thought it was an      24 accurate description of the source</p>
Page 367	Page 369
<p>1 that follows along that chain gets      2 flagged, right?      3       A. Correct.      4       Q. So if you knock it over at      5 the very beginning, you are going to      6 knock over more dominoes than if you walk      7 up to the middle of the domino row and      8 knock it over from there, right?      9       A. Well, I like the analogy. I      10 just have to think through it a little      11 bit to see if it -- if it applies      12 precisely. But in general, I think what      13 you're saying is correct.      14       Q. So if you make a mistake      15 early on and knock over that domino, you      16 are going to mistakenly knock over more      17 dominoes that you didn't mean to knock      18 over, right?      19       A. I'm not sure that you are      20 correct in -- in all instances. I'd have      21 to think through it a little bit more.      22       But in general I agree that      23 the earlier the data you have, whenever      24 you first trigger, flag an order, you are</p>	<p>1 document, and separate and apart from      2 whether it's the -- accurate description      3 of the source document, it's an accurate      4 description of the approach, of the      5 algorithm.      6       What I was trying, with the      7 names that I put on each of these five,      8 is to accurately describe in shorthand,      9 anyway, what the approach was, to have      10 the title be descriptive of what we're      11 actually implementing. And what we're      12 implementing here is a maximum daily      13 threshold in dosage units. And that's      14 why I call it maximum daily dosage units.      15       Q. Okay. Well, you kind of      16 talked about two things. You first      17 talked about the source document, and      18 then you talked about your approach.      19 Let's see if we can break those up into      20 two separate conversations. Does that      21 work?      22       A. Sure.      23       Q. Okay. I think earlier today      24 you referred to the -- the -- what you</p>

<p style="text-align: right;">Page 370</p> <p>1 just now called a source document for 2 this approach as a two-page document. Do 3 you remember that? 4 A. Yes. 5 Q. And I think what you meant 6 by that is that the lawyers who hired you 7 for this case only gave you two pages to 8 look at for purposes of this methodology; 9 is that right? 10 A. No. I meant it as I said 11 it. I don't know whether I received more 12 than two pages or exactly two pages. 13 Q. Why did you call it a 14 two-page document? 15 A. Because that's how I 16 visualize it. That's how I recall seeing 17 it. 18 Q. You don't recall seeing 19 anything more than two pages? 20 A. Not in connection with that 21 document, no. 22 (Document marked for 23 identification as Exhibit 24 McCann-10.)</p>	<p style="text-align: right;">Page 372</p> <p>1 description of the algorithm that 2 I implemented. And what I 3 implemented was a maximum daily 4 dosage unit threshold. 5 BY MR. BOEHM: 6 Q. Okay. My colleagues have 7 corrected me. So let me just for the 8 record say that Exhibit P is on -- as 9 printed on the document is on the 10 original. Y'all didn't have that? 11 A. Yeah, I was going to say I 12 don't recall attaching it as Exhibit P. 13 I referenced it in a footnote, but I 14 don't recall attaching it. 15 Q. Yeah, that's what -- 16 correct. You got it right. I apologize 17 for that. It's a reference in 18 Footnote 55 of your report by Bates 19 number. 20 A. Yes. 21 Q. Are these the two pages, 22 that are now marked as Exhibit 10, are 23 these the two pages that you had in mind? 24 A. Yes.</p>
<p style="text-align: right;">Page 371</p> <p>1 BY MR. BOEHM: 2 Q. I've marked a document that 3 I'm handing you as Exhibit 10 for 4 purposes of your deposition. It's, I 5 think, Exhibit P to your report if I 6 understand the markings on this page 7 correctly. 8 Do you see that? 9 A. Yes. 10 Q. Is Exhibit P the two-page 11 document that you referred to earlier 12 today in connection with the so-called 13 maximum daily dosage units approach? 14 A. Yes. 15 Q. You said you called it the 16 maximum daily dosage units approach based 17 on something that you saw in the 18 document, these two pages, right? 19 MR. MOUGEY: Objection. 20 THE WITNESS: Well, no, I 21 think what I said was that, as I 22 was answering your question, I 23 first said it was something I saw 24 on the document, or rather it is a</p>	<p style="text-align: right;">Page 373</p> <p>1 Q. Is there anything from the 2 document itself that informed your 3 decision to refer to this approach as the 4 maximum daily dosage units approach? 5 I guess another way, what 6 I'm really asking you is, do you know how 7 this document was actually understood and 8 used during the time that it was in 9 effect at Cardinal Health? 10 A. No. 11 Q. Do you have any knowledge 12 about whether or not the way you have 13 applied what you call the maximum daily 14 dosage unit approach, how that compares 15 to what Cardinal was or has done in terms 16 of flagging potentially suspicious 17 orders? 18 A. No. 19 Q. And you don't know how this 20 document which is now marked as 21 Exhibit 10 relates to Cardinal Health's 22 actual efforts to flag transactions, 23 right? 24 A. Correct.</p>

Page 374	Page 376
<p>1 Q. Do you know when this 2 document was created? 3 A. No. 4 Q. Do you know the period of 5 time when the guidance in this document 6 was in effect at Cardinal? 7 A. No. 8 Q. Do you know what the term 9 "dosage limit" was understood to mean at 10 Cardinal in the context of this document? 11 A. No. 12 Q. Do you know how the term 13 "dosage limit" as used in this document 14 was implemented in terms of actual 15 calculations? 16 A. No. 17 Q. So was it the plaintiffs' 18 lawyers who told you how to kind of 19 define the parameters of the maximum 20 daily dosage units approach? 21 A. Well, not precisely, but yes 22 in general terms, what I was asked to do 23 was implement an approach based on the 24 number of dosage units in the column</p>	<p>1 based on whether they are accurate or 2 not. The question is whether they're 3 useful or not. But I'm not -- I'm not 4 opining on the assumptions. I'm just 5 implementing the assumptions. 6 Q. You are not vouching in any 7 way for the accuracy of the assumptions 8 that you're making for the purposes of 9 your five approaches, right? 10 A. Correct. 11 Q. And your calculations in 12 this lawsuit as set forth in your report, 13 do not actually involve any application 14 of alternative sets of assumptions, 15 correct? 16 A. Except across the 17 applications -- across the approaches, 18 no. Maybe I misunderstood. It might be 19 getting a little late. 20 Q. Well, it's possible that I 21 flubbed the question too. 22 You said that it would be 23 possible for you to make different 24 assumptions, right?</p>
<p>1 under retail on this exhibit for the 2 drugs that are listed here. 3 Q. And when you say you were 4 asked to do that, you mean you were asked 5 by the lawyers who hired you? 6 A. Correct. 7 Q. In response to some 8 questioning earlier today you made a 9 reference to what I think you called the 10 flexibility of the model. Do you 11 remember that? 12 A. Yes. 13 Q. And I think what you meant 14 is that it would be possible for you to 15 make different assumptions than you 16 actually do in the way you've implemented 17 these five approaches. Is that fair? 18 A. Yes. 19 Q. Okay. And you're not 20 vouching in any way for the accuracy of 21 your assumptions; you're just 22 implementing them like a calculator 23 would, right? 24 A. I don't judge assumptions</p>	<p>1 A. Yes. 2 Q. And that's what you meant by 3 flexibility. But your computations and 4 calculations and analyses in this case as 5 set forth in your opinions and report 6 don't actually involve any alternative 7 assumptions, right? 8 A. Except across the -- across 9 the approaches. 10 Q. Just -- just tell me what 11 you mean by across the approaches. 12 A. Well, I've got five 13 approaches here we've been talking about. 14 And each of them applies a different set 15 of rules to flagging orders. 16 Q. Oh, yeah. There are 17 differences between the five approaches. 18 A. That's what I meant. 19 Q. I get that there are 20 differences between the five approaches. 21 But my question to you is, even though 22 you could make assumptions other than the 23 ones that you actually are making for 24 purposes of these five approaches, none</p>

<p>1 of your analyses or calculations or  2 conclusions actually apply alternative  3 sets of assumptions that are not captured  4 by your report, right?  5 A. Correct.  6 MR. BOEHM: Let's go off the  7 record for a moment.  8 THE VIDEOGRAPHER: Off the  9 record at 6:28 p.m.  10 (Excused.)  11 (Adjourned at approximately  12 6:28 p.m.)</p>	<p>1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17  18  19  20  21  22  23  24</p> <p>Page 378</p> <p>1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17  18  19  20  21  22  23  24</p> <p>Page 379</p> <p>1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17  18  19  20  21  22  23  24</p> <p>Page 380</p> <p>1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17  18  19  20  21  22  23  24</p>
<p>1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17  18  19  20  21  22  23  24</p> <p>1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17  18  19  20  21  22  23  24</p> <p>1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17  18  19  20  21  22  23  24</p> <p>1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17  18  19  20  21  22  23  24</p>	<p>1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17  18  19  20  21  22  23  24</p> <p>1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17  18  19  20  21  22  23  24</p> <p>1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17  18  19  20  21  22  23  24</p> <p>1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17  18  19  20  21  22  23  24</p>

Page 382

1  
2       **ACKNOWLEDGMENT OF DEONENT**  
3  
4       I, \_\_\_\_\_, do  
5 hereby certify that I have read the  
6 foregoing pages, 1 - 383, and that the  
7 same is a correct transcription of the  
8 answers given by me to the questions  
9 therein propounded, except for the  
10 corrections or changes in form or  
11 substance, if any, noted in the attached  
12 Errata Sheet.  
13  
14  
15

16       **CRAIG J. McCANN, Ph.D., CFA      DATE**  
17  
18

19       Subscribed and sworn  
to before me this  
20       \_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_.

21       My commission expires: \_\_\_\_\_  
22

23       \_\_\_\_\_  
24       Notary Public

Page 383

1       **LAWYER'S NOTES**  
2       **PAGE LINE**  
3       \_\_\_\_\_  
4       \_\_\_\_\_  
5       \_\_\_\_\_  
6       \_\_\_\_\_  
7       \_\_\_\_\_  
8       \_\_\_\_\_  
9       \_\_\_\_\_  
10       \_\_\_\_\_  
11       \_\_\_\_\_  
12       \_\_\_\_\_  
13       \_\_\_\_\_  
14       \_\_\_\_\_  
15       \_\_\_\_\_  
16       \_\_\_\_\_  
17       \_\_\_\_\_  
18       \_\_\_\_\_  
19       \_\_\_\_\_  
20       \_\_\_\_\_  
21       \_\_\_\_\_  
22       \_\_\_\_\_  
23       \_\_\_\_\_  
24       \_\_\_\_\_